Busy Beavers

Adventures with numbers

Grade 1 Arithmetic Book

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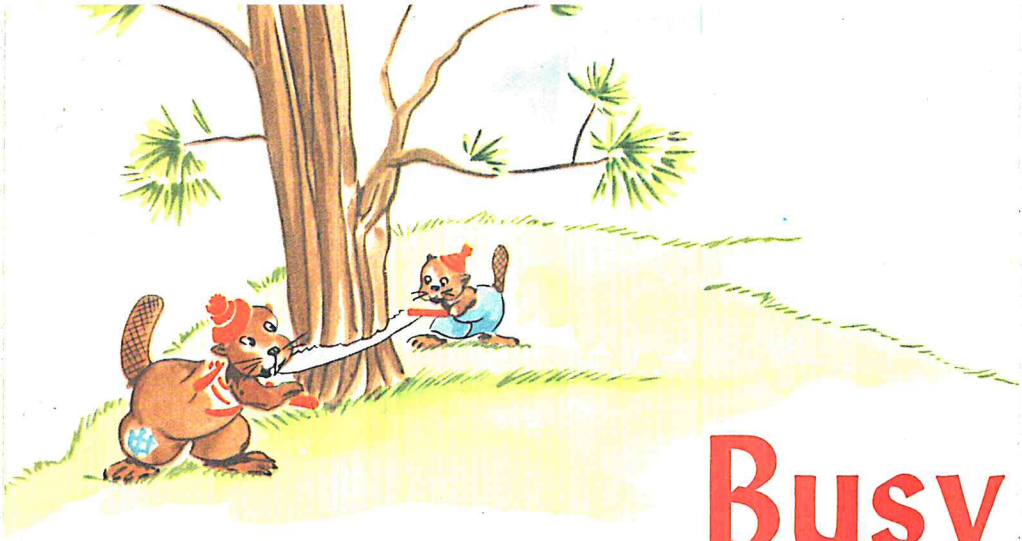

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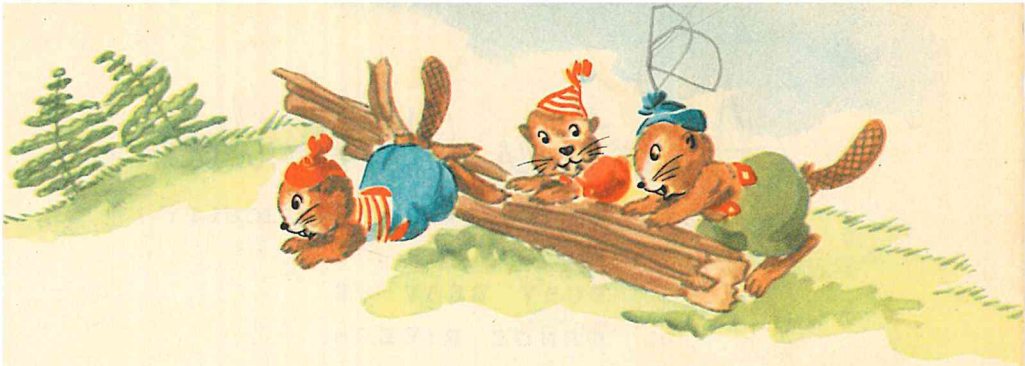

Beavers

Adventures with numbers

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★ ★ ★

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Adventures with numbers

IN ORDER OF INCREASING DIFFICULTY

BUSY BEAVERS
RANGE RIDERS
STRAIGHT SHOOTERS
AIRPLANE ACES
HOME RUN HITTERS
CAGE CHAMPIONS

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★ Preface

Plan of Series. Adventures with Numbers is unique in organization. Each book has a motif taken from the pupils' world and captivating to the pupil. The motif furnishes the book's title. Young learners assume the role of Busy Beavers or Range Riders as they experience adventures with numbers. The boy or girl who is a little older plays that he is on the rifle range or piloting a plane as he gains further skill and understanding. The upper grade pupil takes part in a make-believe ball game, the rules and the scores of which provide motivation and sliding measures of achievement. Emphasis is placed on crediting the pupil with what he does correctly, without undermining his confidence when he fails to make a perfect total score, or the hypothetical 100%.

Unit Organization. Each book is divided into twelve units, each unit a little book in itself, with presentation of new material, practice in computation, and helps in problem solving. Pages of races, drills, and problems, with like captions and illustrations, occur in each unit of a book. The four closing pages of a unit are:

a. Test on material of unit, with a goal.

b. Helps for those who failed to reach goal a.

c. Challenges for those who did reach goal a.

d. Final unit test, geared to average pupil.

The first and seventh units of each book are given largely to reviewing and reteaching. Thus, twice a year, there are systematic campaigns to strengthen foundations so that the pupil can go into new work with new confidence, even though there have been gaps in his earlier work.

Non-Discriminating Differentials. Careful provisions are made for pupils with different learning rates. This is done in such a way as not to foster a superior attitude on the part of the fast learner nor to embarrass the one who learns slowly. Among the beavers, one who mends the wall can take as much pride in his work as the one who builds it higher. In basketball, one who recovers the ball is as valuable to the team as one who passes the ball. There is no higher nor lower with the pupil who does his best with the work that is appropriate for him. In Adventures with Numbers, there is differentiation without discrimination.

Individualized Program. Directions are addressed to pupils. Pupils are asked to choose partners, or to divide into groups or teams to do specific tasks.

They mark each other's papers and go on to the next task. This builds up a feeling of responsibility on the part of the pupil, and helps to release the teacher from constant direction of the class so that she can give help where it is most needed. The range between the slow learner and the fast learner in the average class is great. This series provides material and a plan so that the teacher can guide each pupil along at his own rate, rather than merely "covering" the material judged appropriate for the average pupil.

Readiness. Experience and experiments show that pupils do not become ready of themselves. We also know that teaching is wasted when the pupil is not ready. A program of preparing the pupil for each next step is skillfully woven into Adventures with Numbers. The «times-and» facts precede carrying in multiplication; station numbers precede uneven division. A boy's bicycle repair shop grows into a partnership and into a small corporation before stocks and bonds are presented. No process or idea is introduced until the pupil has been conditioned for it.

Presentation of New Concepts. Meanings, skills, and processes that are most difficult for the child to grasp are usually the ones that are most difficult to present clearly in a text. An author is tempted to be satisfied with something that he knows is inadequate, and to hope that teacher and pupil can fill in what is lacking. In Adventures with Numbers, no effort has been spared to present each new idea clearly and adequately. A pupil is not stopped today by the height of the ultimate goal in arithmetic, but by some little point in today's lesson that is not clear to him. Our presentations make the steps short and leave no gaps.

Using Arithmetic. A pupil may excel in book computation or book problems, and fail to see that the purpose of what he learns in school is to help him outside of school. He fails to carry what he learns in the little world within the school to the big world on the outside. Adventures with Numbers guides the pupil to the use of arithmetic in his everyday affairs, and helps him see arithmetic as a part of his whole self and not just a part of his school self.

Importance of Arithmetic. Quantitative thinking plays a more decisive role in our age than ever before. This is an age of number, measurement, science, and technology. The pupil who leaves school deficient in arithmetic is blocked from entering many fields. He will be handicapped in his efforts to earn a good living, or to buy most with what he does earn. For the individual who will carry his load and for the nation, arithmetic is truly an important part of the education for survival.

Every Boy a King! Every Girl a Queen!

Look at this little king and queen! See how many servants, or helpers, they have. Would you like to have all these helpers as your servants? They will help you, too, if you learn about them.

Really, each of you is a little king or queen. You have hundreds and hundreds of helpers. These helpers are your number friends.

How old are you? How much do you weigh? How many cookies are there in a dozen? You see you cannot answer any of these questions without the help of a number friend. This book will tell you many helpful things about your number friends.

start

Four Friendly Number Helpers

1. Which number tells you how much rent you must pay?

2. What is the number helper 5 telling you?

3. What is number 25 telling you?

4. How do you know how many pounds of sugar are in the bag?

Try to answer each of these questions with a number.

5. How many inches are on a foot ruler?

6. How many pages are in this book?

7. What time does school begin?

8. How many apples are in one dozen?

9. How many days are in one week?

10. Look at the calendar. How many days are in this month?

Numbers tell us many things.

Numbers help us answer questions.

Reading Road Signs

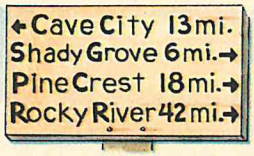
Do you like to ride in the country? How can you tell where you are going when you ride along the highway?

There are signs on the highway that help you find your way. Some of the signs tell you the number of the road. Other signs tell you the names of towns and how many miles you are from these towns.

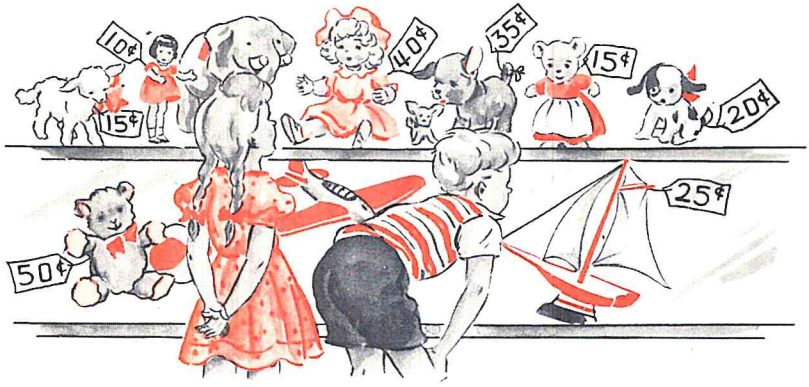
Mary and Jack are riding with their mother and father. Can you help them read the signs so that they will not get lost?

1. What is the number of the highway on which they are riding?
2. How far are they from Happy Valley? From Catfish Creek? Which is nearer?
3. How much does it cost to get a hotel room?

Here are other road signs. Can you read them?



The sign $ means dollars; mi. is short for miles
Numbers help us find our way in the country.



Jack and Mary Go Shopping

Jack and Mary want to buy a present for a birthday party. Jack has 25 cents to spend, and Mary has 10 cents. The numbers on the toys tell how much each costs. The sign ¢ means cents.

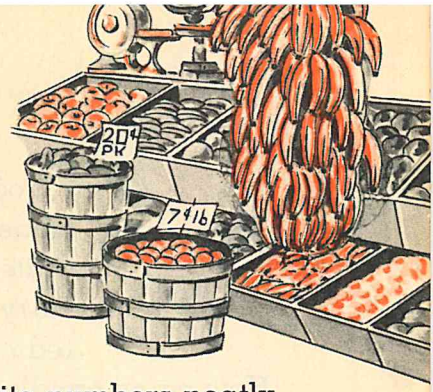
1. Does Jack have enough money to buy a toy dog?
2. Find some toys that he has enough money to buy.
3. Can Mary buy the big doll? Why?
4. Find a toy that she has enough money to buy.
5. Which toy would you like to buy? How much money would you need to pay for it? How can you tell how much it costs?

Making a Play Store

Cut out pictures of toys that you would like to buy. Cut numbers from a calendar or newspaper and use them to make price cards. The class will decide how much to charge for each toy. Pin your pictures and price cards to large sheets of paper or cardboard, and play store.

Numbers help us buy and sell in a store.

SKip



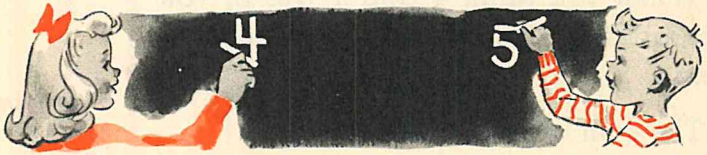
When your grocer makes price cards for his store, he must make the numbers neatly. Why?

When he writes an order that your mother gives him, he makes the numbers neatly. Why must he be so careful?

It is important to be able to write numbers neatly and quickly. Here is a good way. The red dot shows you where to begin. The little arrow shows you which way to move your pencil.

You begin each number at the top. Except for **4** and **5**, you write each number without lifting the pencil.

Mary and Jack write **4** and **5** like this:



1. Write each of the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 as neatly as you can.

2. Write these numbers as your grocer would in making price cards. Write ¢ after each number.

sixty-nine eighty-one seventy-two

3. Give each other numbers and write them neatly on the blackboard.

Happy Birthday

Today is Mary's birthday. Mother made a birthday cake. She put 8 white candles on the cake because Mary is eight years old. She put a red candle in the middle for good luck. How many candles in all did Mother put on the cake?

1. Mary invited 4 girls to the party, and Jack invited 4 boys. How many children were invited to the party?

2. Jack placed the chairs by the table. He needed 1 chair for Mary and 4 for the other girls. How many chairs did he need for all the girls?

3. Jack placed 4 chairs for his friends and 1 for himself. How many chairs did he need for all the boys?

When you think 4 and 1 are 5, you are adding. The answer is called the **sum.**

4
1
5 sum

The sum of 4 and 1 is 5.

The adding of numbers is called **addition.**

4. Mary ate 3 cookies and Jack ate 3 cookies. How many cookies did they eat in all?

Additions like **8 and 1 are 9, 4 and 4 are 8, 1 and 4 are 5, 4 and 1 are 5,** and **3 and 3 are 6** are called addition facts.

Counting and Adding

What is the next number after 6 as you count? It is 7, and **6 and 1 are 7.**

1. What is the next number after each of these, as you count?

2 6 3 8 1 5 7 4 9

2. Read these addition facts, telling what each sum is.

2 and 1 are... 8 and 1 are... 7 and 1 are...
6 and 1 are... 1 and 1 are... 4 and 1 are...
3 and 1 are... 5 and 1 are... 9 and 1 are...

3. Now read these addition facts, telling what each sum is.

1 and 2 are... 1 and 8 are... 1 and 7 are...
1 and 6 are... 1 and 1 are... 1 and 4 are...
1 and 3 are... 1 and 5 are... 1 and 9 are...

4. How are the addition facts in **3** different from those in **2**? How are they alike?

5. Count by 2's to 50. Begin 2, 4, 6, and so on.

6. Count by 2's to 49. Begin 1, 3, 5, and so on.

7. What is the number next after 2 as you count by 2's? What is the number next after 3 as you count by 2's?

The numbers 2, 4, 6, and so on are even numbers.

The numbers 1, 3, 5, and so on are odd numbers.

Learning Addition Facts

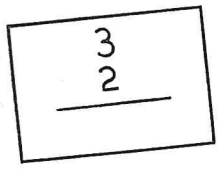
When we add, we need to find a sum quickly. The best way to do this is to learn the addition facts well. There are not very many to learn, and you know some of them already. Read all the addition facts in the table. The first one is "3 and 2 are 5."

3	2	1	1	3	1	6	3	4
2	2	6	3	3	1	1	1	1
5	4	7	4	6	2	7	4	5
4	2	7	1	4	2	1	2	6
4	5	1	5	3	1	4	4	2
8	7	8	6	7	3	5	6	8
5	5	1	4	5	3	2	3	2
1	3	2	2	2	5	3	4	6
6	8	3	6	7	8	5	7	8

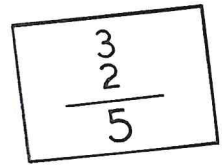
Cover the sums with a piece of paper and write each of the addition facts.

Here is a good way to learn the addition facts that are hard for you. Make 27 cards from stiff paper or thin cardboard. Each card is for one addition fact. On the front, write the numbers to be added. On the back, write the numbers to be added and the sum.

Front



Back



A Game for Two

Jack and Mary like this game. Jack holds up a helper card so that Mary can see only the front of it.

If Mary says the sum right and quickly, Jack gives it to her. If Mary misses or is too slow, Jack shows her the back of the card. Mary then says the fact like this, "4 and 4 are 8." Jack puts this card at the bottom of the stack for her to try when they come to it again.

Jack will show the cards to Mary until she can say each sum right and quickly. Then Mary will hold the cards and play the same way until Jack can say all the sums right and quickly.

Choose someone to play with you and play this game for two.

Here is a game that you can play alone or that you can play with another person. Pick out all the helper cards where the sum is 2, all those where the sum is 3, all those where the sum is 4, and so on. Place these in separate stacks. Without looking at the cards, try to say all the addition facts where the sum is 2, then all where the sum is 3, then all where the sum is 4, and so on.

A Team Game

Choose two pupils, one to be leader and one other to be scorekeeper. Divide the rest of the class into three teams, the Reds, the Whites, and the Blues.

The first one on each team steps up and stands before the leader. The leader holds up a helper card. The first one of the three that gives the right answer makes a point for his team. The scorekeeper will draw a line for each point a team makes.

The three standing in front of the leader go to the end of their teams. The next one on each team steps up and stands before the leader. The leader holds up another helper card, and the game goes on.

These are the final scores for one game.

Reds ||||| =5
Whites ||||||| =7
Blues |||||| =6

A Game for Everybody

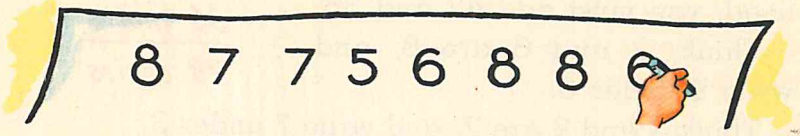
Here is another game several children can play. Put all the helper cards along the chalk tray. Someone says, "Mary, I want a card whose sum is 7. Find it." When Mary finds a card whose sum is 7, she may call on anyone she chooses to find a card for her.

A Way to Save Time in Adding

Here is a quick way to write sums. Do not copy the numbers you will add. Hold your paper under the first row and write the sums like this.

1.

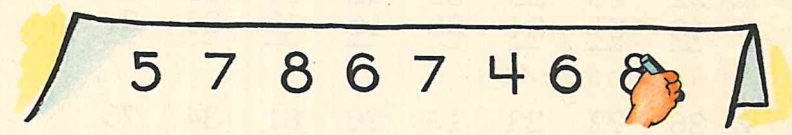
4	2	4	3	2	6	2	5
4	5	3	2	4	2	6	1



When you have written all the sums for the first row, fold them under. Now place the folded edge of the paper under the second row and write the sums.

2.

2	5	3	4	3	2	3	5
3	2	5	2	4	2	3	3



Fold each row of answers under as it is finished, and hold the folded edge under the next row until all the rows have been done.

Write these sums on folded paper.

3.

4	1	2	2	3	4	3	3	2
3	3	5	4	5	1	3	4	6

4.

5	2	4	5	1	6	5	7	2
1	1	4	3	5	1	2	1	2

Getting Ready for a Show

Jack and Mary are helping to get ready for a show. Their room has invited the next room to come to see the show.

There are 42 children in one room and 36 children in the other. How many seats must they have?

To find how many chairs they need, you must add 42 and 36.

Think, 2 and 6 are 8, and write **8** under 6.

Think 4 and 3 are 7, and write **7** under 3.

They will need **78** chairs.

42 chairs
36 chairs
78 chairs

Add and find how many chairs would be needed for each of these groups of pupils. Write the answers on folded paper.

1.	22	17	23	65	42	31	53	37
	46	61	24	23	16	43	23	51
2.	36	72	23	16	26	61	34	75
	12	15	12	21	32	15	52	13
3.	41	27	35	61	25	53	45	64
	36	51	51	24	31	23	42	22

Put these additions on the blackboard so that all may see what the right answers are. Mark your paper with a red crayon. Did you get all the answers right?

Writing Numbers

Each of these numbers is called a figure.

1 2 3 4 5 6 7 8 9 0

There are only 10 figures. With them you can write any number.

We use two figures to write some numbers, and three figures to write other numbers. In higher grades, you will learn to use four, five, or more figures to write numbers.

Two-Figure Numbers		Three-Figure Numbers	
Sixty-three	63	Seven hundred sixty-three	763
Twenty-four	24	One hundred twenty-four	124

You read the number 763 as "seven hundred sixty-three." Never say "seven hundred and sixty-three."

Read these numbers the right way.

1. 724 542 896 752 175 437 841
2. 207 104 702 320 470 560 900

Write these numbers in figures.

3. Two hundred seventy Nine hundred four
4. Five hundred sixty-one Six hundred twenty

In a three-figure number, the figure at the left tells how many **hundreds**; the middle figure tells how many **tens**; the figure at the right tells how many **ones.**

700 seven hundred
60 sixty or six tens
3 three ones
763 seven hundred sixty-three

5. Write 5 three-figure numbers on the blackboard. Ask someone to tell how many hundreds, how many tens, and how many ones in each number.

New Addition Facts to Learn

Here are some more addition facts. Make helper cards just as you did before. Use the helper cards to study these facts until you know them well.

5	1	5	1	2	9	6	8	4
5	7	4	8	8	1	4	2	5
10	8	9	9	10	10	10	10	9

3	8	1	7	2	7	6	3	4
6	1	9	2	7	3	3	7	6
9	9	10	9	9	10	9	10	10

1. Jack and Mary went to the new state park with their father. They drove 48 miles to get there. They came home a different way and drove 61 miles. How many miles did they go on their trip?

To find the number of miles they went, you must add 48 and 61. Always begin at the right when you add.

48 miles
61 miles
109 miles

Think 8 and 1 are 9, and write **9** under 1.

Think 4 and 6 are 10, and write **10** so that the **0** is under 6.

They drove **109** miles on their trip.

2. Write these sums on folded paper.

17	35	63	54	42	81	94	72
32	74	43	55	67	27	11	35

A Throwing Game

Each child has two throws. One time the bag Jack threw fell in space 44, and the other time the bag fell in space 21.

You can find his total score by adding 44 and 21.

If you had two throws, do you think you could do better than Jack did?

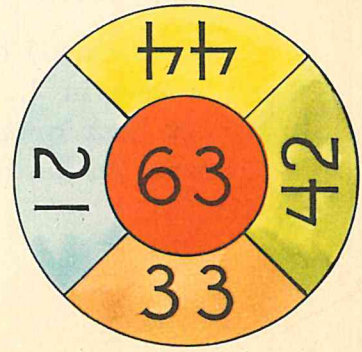
44
21
65

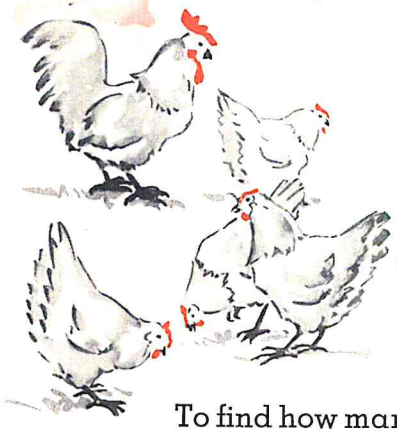
Add these scores for some of the other children. Write the sums on folded paper.

1.	63	33	21	42	21	44	42	44
	44	21	42	63	44	42	33	33

Another group of children were playing the same game but with different numbers. Find the scores they made. Write the sums on folded paper.

2.	72	33	12	24
	35	24	72	35
3.	33	24	72	33
	72	35	24	12





Farmers Add Big Numbers

Father took Jack and Mary to visit Grandfather's farm. Grandmother had many chickens. There were 114 white ones and 123 gray ones. How many chickens did she have in all?

114 chickens
123 chickens
237 chickens

To find how many chickens Grandmother had, add each column beginning at the right.

Think 4 and 3 are 7, and write **7** under 3.

Think 1 and 2 are 3, and write **3** under 2.

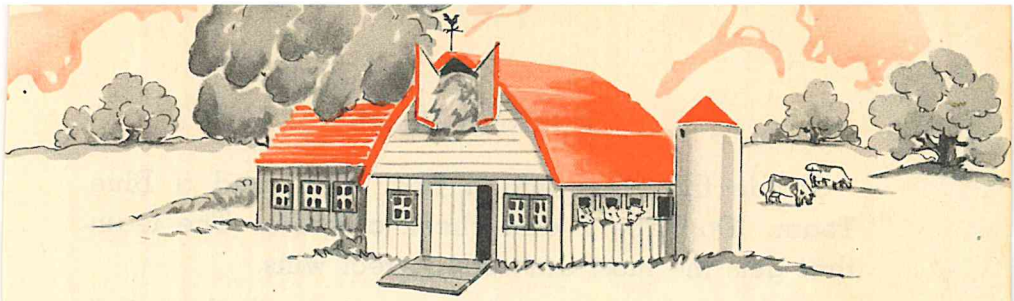
Think 1 and 1 are 2, and write **2** under 1.

Grandmother had **237** white and gray chickens.

Write these sums on folded paper.

1.	245	225	171	114	145	333	426
	141	253	612	352	132	325	341
2.	612	323	462	138	517	264	518
	143	144	126	761	482	735	361
3.	738	437	624	513	372	263	411
	241	322	342	274	325	534	446

4. Now copy on the blackboard the numbers to be added in **1**, **2**, and **3** above, and add them. Check your answers on the folded paper with the answers on the blackboard.



Mary and Jack saw 3 cows in the barn and 2 cows behind the barn. Grandfather said there were 4 other cows in the pasture. How many cows did Grandfather have?

To find how many cows there were, write 3, 2, and 4 as shown under "Add." This is called writing numbers in a **column.**

Add	Think	Check	
3		3	9
2	5	2	6
4	9	4	Think
9		9	

Begin at the top. Think 3 and 2 are 5, and 4 more make 9. Write 9 under 4 as the sum.

To check to see that your answer is right, begin at the bottom. Think 4 and 2 are 6, and 3 more are 9. The answer checks if you find the same sum when you add up as when you added down.

1. Jack and Mary gathered eggs. They found 5 in the hen house, 4 in the barn, and 1 in the hay stack. How many eggs did they find in all?

2. Find how many eggs Grandmother got each day.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3	5	2	7	6	4
4	2	3	1	1	2
1	2	2	1	2	3

Addition Races

Divide the class into a Red Team and a Blue Team. Do Race 1 and check answers. The team that gets the most answers correct wins.

Do the other races when you come to them just as you did Race 1.

When doing a race, work as fast as you can, but work carefully. Wrong answers will not help your team to win. Write the sums on folded paper.

Stand or raise your hand as soon as you finish a race, so that your teacher will know that you have finished.

Race 1. Ready! Go!

1.	17	34	62	75	25	83
	21	45	24	23	62	16
2.	71	82	74	23	56	34
	33	14	34	85	52	33
3.	82	43	13	48	17	53
	27	64	36	61	82	56

Race 2. Ready! Go!

1.	231	146	221	653	722
	528	423	725	145	273
2.	511	342	453	511	617
	476	254	546	234	321

Race 3. Ready! Go!

1.	2	4	1	5	2	3	2
	1	2	4	1	2	3	3
	4	3	2	2	5	2	4
2.	6	4	1	1	3	2	2
	3	2	2	5	2	1	2
	1	2	3	3	4	5	3
3.	2	3	7	3	1	4	1
	3	1	1	4	2	1	2
	1	2	1	1	5	1	2

Race 4. Ready! Go!

1.	3	2	3	1	1	2	4
	1	4	1	2	5	3	1
	3	1	5	4	2	2	4
2.	1	2	3	2	3	1	2
	3	5	1	4	3	4	6
	1	1	1	2	3	4	2
3.	4	2	6	4	3	4	5
	3	5	1	2	2	1	2
	3	2	3	3	3	5	3

Which team won Race 1? Which team won Race 2? Which team won Race 3? Which team won Race 4?

Try these races again some other day.

A New Way to Write Addition Facts

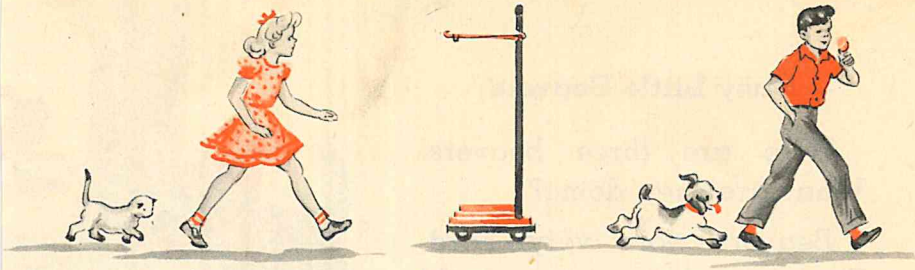
The sign + means **and** or **plus.** It tells you to add.

The sign = means **are** or **equals.** It tells you that two things have the same value.

These two signs are used to write addition facts in a new way. $3+4=7$ means the same as $\begin{array}{r} 3 \\ +4 \\ \hline 7 \end{array}$ and you read it as "3 and 4 are 7," or as "3 plus 4 equals 7."

Say these addition facts with their sums. Say the first one, "6 and 2 are 8."

1. 6+2	**16.** 3+3	**31.** 8+1
2. 4+2	**17.** 3+5	**32.** 1+9
3. 1+4	**18.** 1+1	**33.** 5+4
4. 3+2	**19.** 5+2	**34.** 1+8
5. 4+3	**20.** 1+3	**35.** 7+2
6. 1+5	**21.** 2+4	**36.** 9+1
7. 7+1	**22.** 1+6	**37.** 2+7
8. 2+5	**23.** 1+2	**38.** 7+3
9. 4+4	**24.** 2+2	**39.** 6+4
10. 4+1	**25.** 5+3	**40.** 3+7
11. 2+6	**26.** 2+1	**41.** 6+3
12. 3+1	**27.** 5+1	**42.** 8+2
13. 3+4	**28.** 3+6	**43.** 4+6
14. 6+1	**29.** 5+5	**44.** 4+5
15. 2+3	**30.** 1+7	**45.** 2+8



Getting Weighed

1. Jack weighed 57 pounds, and Whiskers weighed 22 pounds. How much did both weigh?

2. Mary weighs 55 pounds, and Tiger weighs 12 pounds. How many pounds do they both weigh?

3. Tom weighs only 51 pounds. How much do Tom and Jack together weigh?

4. Sue, who is Mary's best friend, weighs 54 pounds. How much do Sue and Mary both weigh?

5. Jack saw a chart in the nurse's office that said he should gain 31 pounds in the next five years. How much should Jack weigh then?

6. Mary said she ought to gain 43 pounds in the next six years. How much should she weigh then?

7. The biggest boy in Jack's room weighs 42 pounds more than Jack. How much does he weigh?

Write these sums on folded paper. Do you notice anything odd about them?

8.	54	63	72	81	53	62	71	52
	45	36	27	18	35	26	17	25
9.	61	51	42	14	23	13	44	33
	16	15	24	41	32	31	44	33

Busy Little Beavers

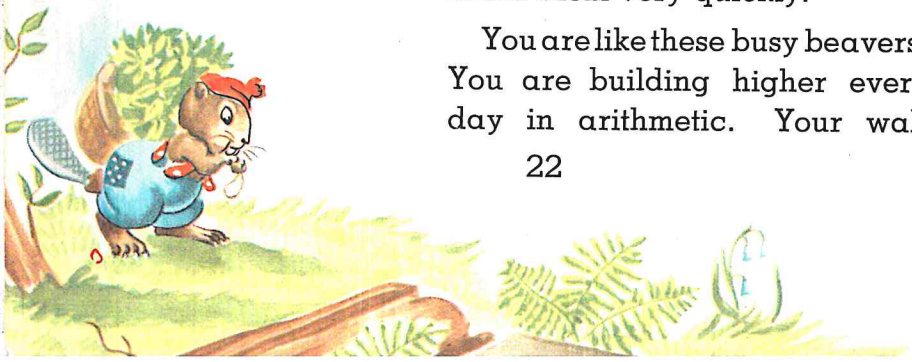
Here are three beavers. What are they doing?

Beavers work very hard. They cut down trees, build dams in the water, and make fine homes.

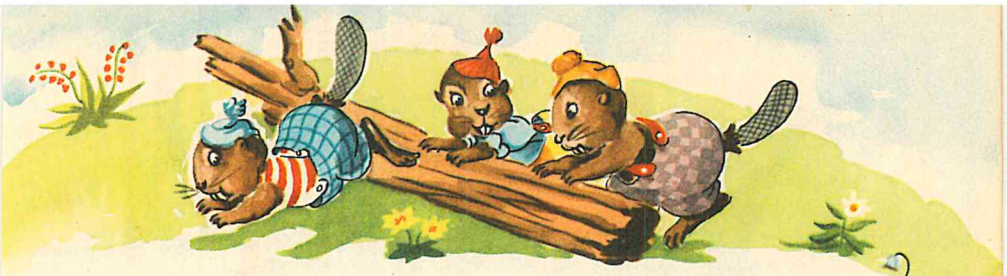
Beavers use good sense in their work, too. The homes they build are very safe. They make the door of their house deep down in the water where no other animals can enter it. From the door they dig a hole uphill through the earth. At the end of the hole they make a large room for themselves. Here they make a bed of leaves and store twigs and bark for food.

They want the door of their house deep down where the water will not freeze. Busy little beavers build dams or walls to hold back the water. In this way they make a deep quiet pond for themselves.

See what a fine wall these beavers are making with leaves, twigs, stones, and mud. They are building very carefully so the water cannot get through. If they find holes in the wall they mend them very quickly.



You are like these busy beavers. You are building higher every day in arithmetic. Your wall



must be very strong, too. When you make mistakes there are holes in the wall that you are building in arithmetic. You must mend them quickly. Here is your chance to work like a beaver!

For Busy Beavers

Write neatly in figures.

1. Seventy-six; eighty-one; fifty; twelve
2. The even numbers from forty to fifty
3. The odd numbers from thirty-five to forty-five
4. Three hundred fifty-three; four hundred sixty

Write the sums on folded paper.

5.

521	337	416	526	745	425	673
166	541	182	243	234	233	123

6.

2	1	3	5	4	2	4	4	2
3	2	3	1	4	4	2	3	1
3	5	2	4	1	4	3	2	5

Are you all finished? Have someone write the answers on the blackboard. Mark your papers.

If you made more than four mistakes, your wall needs mending. Page 24 will help you with your patching.

If you made four mistakes or less, you may build your wall higher. Page 25 is for you beaver builders.

Help for Mending the Wall

1. Get another beaver to play with you. Play the helper card games on pages 8 and 9.

2. Ask another beaver to race with you. Try the races on pages 18 and 19. After each race, mark each other's paper. Who won each race?

3. Ask some other beaver to race with you. Do the work on page 23 again. When you finish, mark each other's paper.

Write these sums as quickly as you can.

4.

3	2	5	8	4	3	1	3	7
3	5	1	1	3	2	3	1	2
2	2	2	1	2	3	6	4	1

5.

824	456	213	475	233	341	586
153	323	564	214	735	628	413

6.

335	273	387	534	382	312	474
252	316	412	211	316	642	325

If you did this page well, your wall for this unit is safe. You can now "swim along" with the other beavers on page 26.

A Page for Beaver Builders

Write these numbers neatly on the blackboard in figures.

1. Three hundred seventeen
2. Two hundred forty-nine
3. Eight hundred twelve
4. One hundred four
5. Two hundred two
6. Six hundred ten

7. Look again at the numbers you have just written. Did you write them neatly? If you have written them well, ask other beavers to read them. Remember, it is wrong to say "and" when you read three-figure numbers.

8. Write these numbers in words. For the first one, 779, write **seven hundred seventy-nine.**

779 663 322 484 568 147

9. Have the beavers who are working on page 24 read aloud the numbers you wrote on the blackboard in **8**. Then have them write these numbers in figures.

"Swimming in the Pond" is a fun page.

Swimming in the Pond

1. Father Beaver worked 5 hours, Mother Beaver worked 3 hours, and Baby Beaver worked 1 hour. How many hours did they work in all?

2. Mother Beaver carried four twigs, Father Beaver carried four twigs, and Buddy Beaver carried two twigs. How many twigs did they all carry?

3. Mother Beaver carried 135 twigs for their new house. Father Beaver carried 354 twigs. How many twigs did they carry in all?

4. Baby Beaver carried 61 leaves in the morning and 24 leaves in the afternoon. How many did he carry in all?

Find the sums.

5.

3	4	2	6	8
4	2	5	1	1
1	3	2	2	1

6.

34	42	35	26	71
62	34	23	42	38

7.

123	456	351	473	468
456	232	626	124	521

Learning to Subtract

Jack and Tom were playing marbles. Tom put 5 marbles in the ring, and 1 of them rolled out. How many marbles were left in the ring?

To find how many marbles were left in the ring, take 1 from 5. The answer is 4 marbles.

5 marbles
−1 marble
4 marbles

The sign — is called the **minus** sign. It tells you to "take away," or subtract. You read the example, "1 from 5 is 4." When you subtract, the answer is called the **remainder.**

You may also write the example, "5 − 1 = 4." You read this "5 take away 1 equals 4" or "5 minus 1 equals 4" or "5 less 1 is 4."

4 + 1 = 5 5 − 1 = 4

Learning Subtraction Facts

You had to learn addition facts before you could add. You must learn subtraction facts before you can subtract.

Study the subtraction facts below.

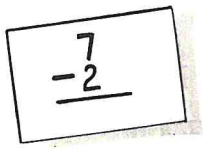
3	4	7	4	2	6	7	4	5
−2	−2	−1	−1	−1	−3	−6	−3	−4
1	2	6	3	1	3	1	1	1
8	7	8	6	7	5	5	6	8
−4	−2	−7	−1	−4	−3	−1	−2	−6
4	5	1	5	3	2	4	4	2
6	8	3	6	7	8	5	7	8
−5	−5	−1	−4	−5	−3	−2	−3	−2
1	3	2	2	2	5	3	4	6

1. Cover the first row of answers and say the facts. Begin, "3 less 2 is 1." Do the same for the second row and the third row.

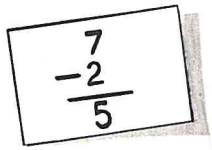
2. Cover a row of answers and write the answers on folded paper. Check the answers you wrote with those in the book.

Make a helper card for each of the subtraction facts. On the front of each helper card, write the numbers to be subtracted. On the back, write the numbers to be subtracted and the remainder.

Front



Back



The Baker Uses Subtraction

The baker had 65 cookies on a tray and sold 24 of them. How many did he have left?

Write 24 under 65, and subtract.

65 cookies
24 cookies
41 cookies

Think 4 from 5 is 1, and write **1** under 4.

Think 2 from 6 is 4, and write **4** under 2.

There are **41** cookies left.

1. Find how many cookies were left on each of these trays.

First	Second	Third	Fourth	Fifth	Sixth	Seventh
36	58	63	24	73	86	47
−25	−44	−32	−12	−52	−22	−11

The baker had 567 pounds of sugar and used 314 pounds. How many pounds did he have left?

Write 314 under 567, and subtract.

567 pounds
314 pounds
253 pounds

Think 4 from 7 is 3, and write **3** under 4.

Think 1 from 6 is 5, and write **5** under 1.

Think 3 from 5 is 2, and write **2** under 3.

He has **253** pounds of sugar left.

Write these remainders on folded paper.

2.

386	478	783	466	277	658	734
−245	−225	−171	−114	−145	−333	−122

3.

755	467	588	738	864	757	476
−612	−323	−462	−527	−312	−421	−153

Learning More Subtraction Facts

Study the subtraction facts below.

10	8	9	9	10	10	10	10	9
−5	−1	−5	−1	−2	−9	−6	−8	−4
5	7	4	8	8	1	4	2	5

9	9	10	9	9	10	9	10	10
−3	−8	−1	−7	−2	−7	−6	−3	−4
6	1	9	2	7	3	3	7	6

1. Cover a row of answers and say all the facts in that row. Begin with the top row, "10 less 5 is 5."

2. Cover a row of answers and write the answers on folded paper. Check the answers you wrote with the answers in the book.

Make a helper card for each of the subtraction facts above. Practice with your subtraction helper cards as you practiced with your addition helper cards. You will find games to play on pages 9 and 10.

Write these remainders on folded paper.

3.

106	109	107	104	102	108	105
−45	−53	−24	−31	−11	−76	−82

4.

985	897	898	379	789	688	976
−432	−521	−417	−113	−538	−413	−742

Subtraction Problems

To find how much is left or how many are left, you subtract.

1. Jane had 10 cents and spent 6 cents. How much did she have left?

2. George had 9 tickets and gave 3 of them away. How many did he have left?

To find how much more or how many more, you subtract.

3. Andrew has 5 cents. How much more does he need to buy a knife that costs 10 cents?

4. It takes 10 bottle caps to get a paper doll. Grace has 6 bottle caps. How many more does she need?

To find the difference, you subtract the smaller number from the larger number.

5. Herbert is 10 years old and Harold is 8 years old. What is the difference in their ages?

6. Chocolate cookies are 10 cents a bag and sugar cookies are 6 cents a bag. What is the difference in price?

7. A large kite costs 25 cents and a small one costs 12 cents. What is the difference in price?

8. Dora had 48 cents and spent 25 cents. How much did she have left?

More Subtraction Practice

Say these subtraction facts. The first one is 3 from 5 is 2, or 5 less 3 is 2.

1. 5 − 3	**16.** 4 − 1	**31.** 9 − 2
2. 8 − 3	**17.** 6 − 1	**32.** 10 − 9
3. 5 − 2	**18.** 6 − 4	**33.** 10 − 7
4. 6 − 3	**19.** 3 − 1	**34.** 9 − 6
5. 5 − 1	**20.** 8 − 7	**35.** 10 − 6
6. 7 − 6	**21.** 7 − 1	**36.** 10 − 8
7. 4 − 3	**22.** 4 − 2	**37.** 10 − 3
8. 6 − 2	**23.** 7 − 2	**38.** 9 − 4
9. 7 − 3	**24.** 8 − 5	**39.** 10 − 4
10. 8 − 2	**25.** 3 − 2	**40.** 9 − 3
11. 8 − 6	**26.** 8 − 4	**41.** 10 − 5
12. 5 − 4	**27.** 6 − 5	**42.** 8 − 1
13. 7 − 5	**28.** 9 − 1	**43.** 9 − 8
14. 2 − 1	**29.** 9 − 7	**44.** 9 − 5
15. 7 − 4	**30.** 10 − 2	**45.** 10 − 1

Practice with your helper cards any subtraction facts that are hard for you.

Write these remainders on folded paper.

1.	754	852	666	878	538	657	853
	−331	−211	−235	−665	−414	−436	−521
2.	568	839	935	107	104	105	109
	−451	−223	−612	−14	−33	−82	−45

The Back Yard Garden

1. Jack had 8 packages of flower seed. How many were left after he had planted 3 of them?

2. There were 28 tulips. Mary picked 12 of them. How many tulip blossoms were left?

3. There were 64 empty flower pots in the yard. Jack put 32 of them in his wagon. How many were left in the yard?

4. There were 75 pansy plants in a row. Mary took 54 of them to put in the front yard. How many pansy plants did she leave?

5. There were 25 stakes in a bundle. Jack took 12 of them for his flower bed. How many stakes were left?

6. Mary had 28 daisies, but 16 of them died. How many were left?

7. Jack picked 27 red roses. Mary picked 15 yellow roses. Jack picked how many more roses than Mary did?

8. There were 324 plants in a border. A dog dug in the border and killed 112 of them. How many plants were left?

Addition-Subtraction Races

These races will tell you how fast you are and how many correct answers you get.

Stand as soon as you have finished a race. Count the number of children that stood ahead of you. Write the next number on your paper. If 16 stood before you did, you will write 17 on your paper. This will tell that there are 16 who are faster than you are.

As soon as everyone has finished, have the answers put on the blackboard. Check the answers on your paper with the answers on the blackboard. How many correct answers did you get? How many in the class had more answers correct than you did?

Race 1

Write the sums on folded paper.

1.	1	3	4	6	3	5	4	1	7
	8	5	6	2	6	5	2	5	3
2.	2	6	1	1	3	4	3	5	2
	3	1	7	5	1	2	3	3	4
	4	3	2	4	4	2	3	2	3

Write the remainders on folded paper.

3.	9	8	7	10	8	7	10	9	8
	−7	−1	−2	−5	−6	−3	−3	−4	−2
4.	8	10	7	9	10	8	9	7	10
	−3	−6	−4	−2	−4	−5	−5	−6	−8

Race 2

Write the sums on folded paper.

1.	284	387	884	713	625	453	531
	615	412	115	244	222	325	257
2.	364	242	324	121	326	541	374
	123	425	621	416	533	137	415

Write the remainders on folded paper.

3.	373	486	767	478	255	657	845
	−221	−274	−115	−143	−132	−313	−524
4.	108	109	107	109	108	104	105
	−51	−64	−71	−17	−41	−42	−62

Race 3

In some of these problems you add, and in some you subtract. Read a problem carefully to find out which you ought to do. Then work the problem.

1. Jack ate 37 peanuts, and Mary ate 22 peanuts. How many more did Jack eat than Mary ate?

2. Jack ate 26 lemon drops and Mary ate 12. How many lemon drops did they both eat?

3. There are 256 pages in a book. Jack has read 124 pages. How many more pages does he have to read?

4. Mary read 124 pages in one book and 212 pages in another. How many pages did she read?

5. Jack had 76 cents and spent 25 cents. How much does he have left?

6. Mary has 31 cents. A doll she wants costs 75 cents. How much more does Mary need to buy the doll?

Play Day in the Park

For each problem, think, "Do I add or do I subtract to get the right answer?"

1. The organ grinder and his monkey were in the park. The monkey had 11 pennies, and the children gave him 25 pennies more. How many did he have then?

2. Later the monkey had 32 pennies in his pocket and 12 pennies in his hat. How many pennies did he have in all?

3. When the monkey had 78 pennies in his pocket, he stood on his head and 14 pennies fell on the ground. How many pennies stayed in his pocket?

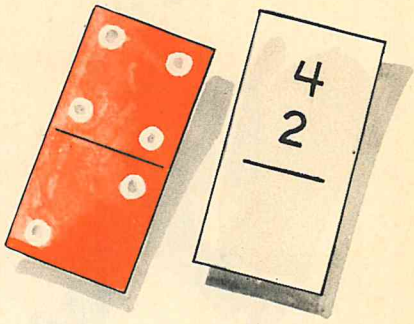
4. The balloon man had 12 blue balloons and 33 yellow ones. How many did he have in all?

5. A large balloon costs 10 cents, and Mary has only 6 cents. How much more does she need to buy a balloon?

6. The balloon man had 45 balloons and sold 13 of them. How many did he have left?

7. Helen spent 25 cents for lunch, and Dora spent 12 cents. How much more than Dora did Helen spend?

Tricks About Addition Facts



How are the two helper cards alike, and how are they different?

Will the sums on the two helper cards be the same? How do you know?

Draw cards using dots to show each of these addition facts. Say the sums.

1.

5	2	6	3	2	4	4	1	3
2	4	3	5	6	6	5	6	4

Turn the dotted cards around to show these addition facts. Say the sums.

2.

2	4	3	5	6	6	5	6	4
5	2	6	3	2	4	4	1	3

The doubles in addition are easy. Say the sums.

3.

1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9

When you know the doubles in addition, the near doubles are also easy. Say these sums.

4.

2	3	4	5	6	7	8	9	6
1	2	3	4	5	6	7	8	7

For Boys Only

While the boys do the problems on this page, the girls will do the problems on the next page. When the boys and the girls have finished, they will mark each other's papers.

Read each problem carefully. Think, must I add or must I subtract? Make no mistakes in your work.

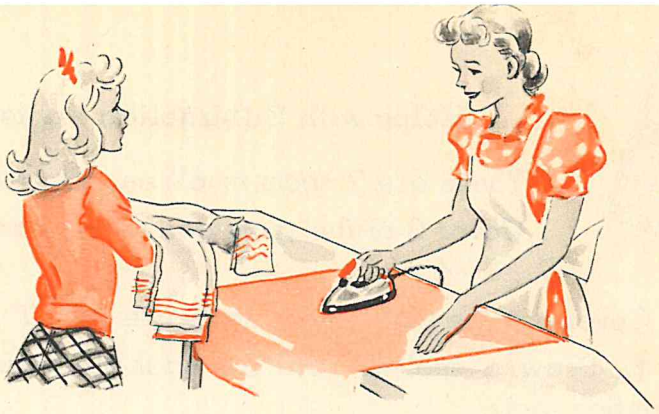
1. Jack sold 45 *Evening Posts* and 32 *Daily News.* How many papers did he sell?

2. He had 54 pennies in one pocket and 34 pennies in the other pocket. How many pennies did he have in both pockets?

3. He had 96 papers and sold 82 of them. How many did he have left?

4. Jack took 56 papers to sell. If he brought back 31 papers, how many had he sold?

5. Jack sold 23 papers Tuesday and 21 Wednesday. How many did he sell in all?



For Girls Only

The girls will do this page while the boys do page 38. When the girls and boys have finished, they will mark each other's papers.

Read each problem carefully. Think, must I add or must I subtract? Make no mistakes in your work.

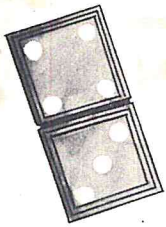
1. Mother ironed 15 bath towels and 24 dish towels. How many towels did she iron?

2. Mary put 21 small handkerchiefs and 12 large handkerchiefs in a drawer for Mother. How many handkerchiefs did she put in the drawer?

3. Mother ironed seven dresses for Mary. Mary said, "Three of these dresses are blue, Mother." How many of Mary's dresses were not blue?

4. It took Mother 21 minutes to iron a large tablecloth and 17 minutes to iron a small tablecloth. How long did it take to iron both?

5. Mother ironed 36 pieces and put them in a pile. Mary put 25 of these pieces away. How many were left in the pile?



Helps with Subtraction Facts

There are 7 spots in all on this card.

Cover 3 of the spots and 4 spots are left.

$7-3=4$

Cover 4 of the spots and 3 spots are left. $7-4=3$

1. Draw a spotted card for each of these subtraction facts.

9	7	10	9	8	9	7	10	8	7
−5	−1	−4	−4	−3	−3	−5	−5	−2	−4

When a subtraction fact is hard for you, think the addition fact that uses the same numbers. Instead of thinking 7 from 9 is how much, you can think 7 and how much make 9.

2. Say these addition facts. Begin, **7 and 2 are 9.**

7	6	3	2	1	4	5	7	5	6
+*	+*	+*	+*	+*	+*	+*	+*	+*	+*
9	10	8	6	8	7	9	10	7	9

3. Say the subtraction facts. Begin, **7 from 9 is 2.**

9	10	8	6	8	7	9	10	7	9
−7	−6	−3	−2	−1	−4	−5	−7	−5	−6
*	*	*	*	*	*	*	*	*	*

How is each of these subtraction facts like the addition fact directly above it in **2**? If you know the addition fact, does that help you know the subtraction fact?

Say these addition facts and subtraction facts.

4.

1	7	4	7	6	9	2	8
+*	−1	+*	−4	+*	−6	+*	−2
7		7		9		8	

5.

3	5	2	7	4	10	3	9
+*	−3	+*	−2	+*	−4	+*	−3
5	*	7	*	10	*	9	*

Little Races

Work as fast as you can and as carefully as you can. After each race choose some pupil to work with you in marking both your papers.

Race 1

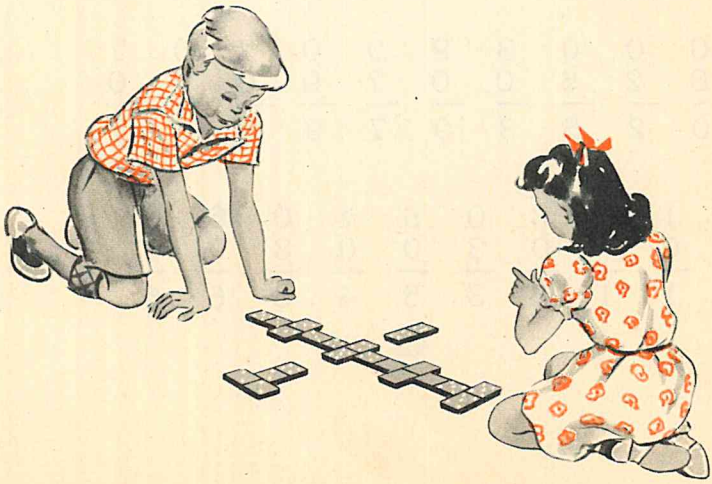
Write the sums on folded paper.

25	32	41	24	52	31	45	24
22	14	32	61	34	42	21	33
42	53	16	14	13	23	33	42

Race 2

Write the remainders on folded paper.

109	86	78	99	107	77	94	57
67	32	41	56	75	41	61	32



The Way to Add Zero in Your Score

Each child has two rings. Mabel's first ring fell on the floor, making her first score 0, or zero. Zero means nothing at all. Her second ring hung on peg 3, making her second score 3. Mabel's total score is the sum of 0 and 3.

These are the scores of all the children playing the ring game.

	Mabel	Alvin	Sarah	Emery
First Score	0	4	2	0
Second Score	3	0	3	0
Total Score	3	4	5	0

The sum of 0 and any number is the number.

The sum of any number and 0 is the number.

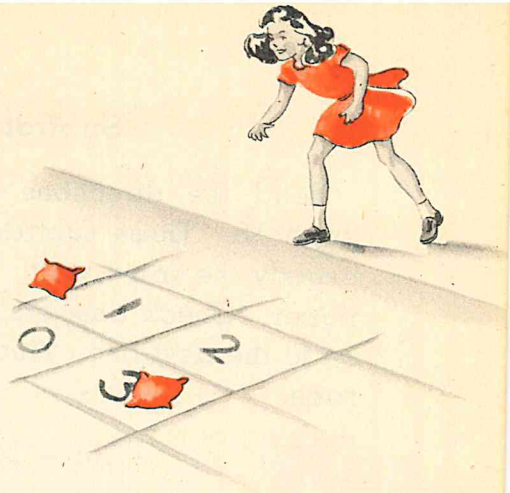
The sum of 0 and 0 is 0.

Study the addition facts in this table until you can say each one quickly.

0	0	0	3	9	0	0	2	0	7
0	2	5	0	0	7	9	0	4	0
0	2	5	3	9	7	9	2	4	7

1	0	8	0	5	4	0	6	0
0	1	0	3	0	0	8	0	6
1	1	8	3	5	4	8	6	6

A Game for a Rainy Day



Jack marked off a place like that shown in the picture. Mary stood on the line with two bean bags. The first one she threw fell on the space marked 3. The next one she threw fell on the space marked 0. Her total score was 3 plus 0, or 3.

Here are the scores for all the children. What is the total score for each?

Mary	Tom	Jane	Carl	Ruth	Dot	Ann	Jack
3	2	6	0	3	4	2	2
0	2	4	3	5	0	0	3

Who had the best score? Who had the next best score?

Write these sums on folded paper.

1.

0	0	7	4	2	0	2	0	4
6	1	1	5	6	7	8	7	0
0	9	0	1	0	3	0	2	3

2.

5	4	0	3	0	3	4	7	6
3	0	7	2	5	1	0	1	0
0	5	1	1	0	3	2	0	2
2	0	1	0	4	1	3	1	1

Subtraction Races

Read the directions for the addition races on page 18. These subtraction races will be done in exactly the same way. Write remainders on folded paper. Check answers for each race before going on to the next one. Find out which team wins each race.

Race 1. Ready! Go!

1.	9	7	10	9	6	7	8
	−5	−4	−6	−3	−2	−5	−3
2.	7	10	9	7	8	9	6
	−2	−4	−7	−1	−5	−2	−4
3.	3	5	7	9	8	6	8
	−1	−2	−3	−6	−6	−3	−1

Race 2. Ready! Go!

1.	369	546	378	948	368
	−247	−135	−155	−625	−132
2.	297	386	968	835	486
	−124	−252	−635	−321	−163
3.	849	798	977	689	788
	−637	−546	−653	−467	−344

Race 3. Ready! Go!

1.	587	976	253	387	994
	−162	−865	−121	−253	−763
2.	679	879	577	996	689
	−345	−364	−252	−543	−433
3.	849	829	936	638	925
	−417	−113	−325	−127	−312

Race 4. Ready! Go!

1.	739	835	298	839	698
	−312	−624	−126	−515	−432
2.	767	934	547	486	975
	−323	−521	−322	−135	−634
3.	665	487	679	839	685
	−344	−245	−555	−622	−431

Race 5. Ready! Go!

1. Peggy, the cow, weighs 975 pounds, and Ring Tail, the calf, weighs 243 pounds. How much more does Peggy weigh?

2. Jack had 848 bottle caps and gave 225 of them to Tom. How many did Jack have left?

3. Tom had 362 bottle caps before Jack gave any to him. How many bottle caps did Tom have after Jack had given 225 to him?

Let Us Try This "Yes-No" Game

Write the numbers 1 to 9 on a sheet of paper.

Read the first question carefully. Decide whether the answer is "yes" or "no." Then write the correct answer, "yes" or "no," after **1** on your paper.

Do the same for the rest of the questions.

1. You had 10 spelling words. If you got 3 wrong, did you get 7 right?

2. Your first score is 5. If your second score is 0, is your final score 5?

3. Is a book with 985 pages a little book?

4. Can you carry 350 pounds on your back?

5. If a card has 9 spots and you cover 6 of them, will there be 3 left?

6. There were 10 dishes to be dried. Mary dried 6 of them, and Jack dried 4 of them. Were all the dishes dried?

7. Tom had 9 cookies in a bag. After eating 4 cookies, he said there should be 5 in the bag. Was he right?

8. Is page 47 nearer the front of a book than page 27?

9. Is a man who is 6 feet tall shorter than a man who is 5 feet tall?

Try This Tricky Treasure Hunt

The treasure is the right answer. It is hidden among three answers.

Choose the right answer for each of the treasure hunt questions and copy it on your paper.

1. I had 4 pennies, and Mother gave me 6 more. To find how many I now have, should I
subtract? ask Mother? add?

2. I had 10 pencils and gave some away. To find how many I have left, should I
add? subtract? guess?

3. I have 25 red apples and 64 yellow ones. To find quickly how many I have in all, should I
count them? add? subtract?

4. I had some pennies, and I spent some. Do I have .... money than before I spent any?
the same amount of more less

5. When the game was over, Jack's score was 17 and Mary's score was 10. Did Mary
win the game? lose the game?
come out even?

6. Jack planted a small tree, and it grew 2 feet. Did the tree
get shorter? get taller? have apples on it?

Betty Is a Good Helper

1. Ask your teacher if you may tell a little story about what Betty is doing to help.

2. There are 144 black pencils in one box and 144 yellow pencils in another box. How many pencils are there in the two boxes?

3. There were 144 red pencils in a box. Miss Martin took 32 of them. How many were left in the box?

144
−32
112

4. There were 96 small erasers in a box. Miss Martin took 54 of them. How many were left?

5. There were 112 cards in a box. How many cards would there be in 3 boxes?

112
112

6. There were 213 paper clips in a box. How many paper clips would there be in 3 boxes?

112
336

7. There were 84 large sheets of paper, and Miss Martin used 32 of them. How many sheets were left?

8. There were 656 small sheets of paper, and Miss Martin used 224. How many were left?

9. There were 2 pairs of large scissors, 6 pairs of middle-size scissors, and 1 pair of small scissors. How many pairs were there in all?

Are You Working Like a Beaver?

Write the sums on folded paper.

1.

7	5	3	0	7	9	6
0	0	6	8	2	1	0

2.

0	4	2	6	0	0	4
1	3	5	0	2	3	1
0	1	2	1	7	5	4

3.

5	2	1	0	3	7	6
0	1	5	0	5	2	4
2	2	3	4	1	0	0
3	3	0	0	1	1	0

4.

26	50	42	30	37	43	31	36
30	20	13	40	20	30	28	11
12	16	20	20	22	16	40	20

Write these remainders on folded paper.

5.

892	596	852	899	798	594	897
−631	−373	−521	−472	−233	−411	−253

If you made more than 8 mistakes, your wall needs patching. Work page 50.

If you made 8 mistakes or less, do the work on page 51.

Help for Mending the Wall

Beavers will like to practice addition and subtraction if they work in this way.

If you made mistakes in **1** on page 49, study and then see how fast you can say the addition facts at the bottom of page 42.

If you made mistakes in **2** or **3,** page 49, do **1** and **2** on page 43 again. If you made even one mistake, do **1** and **2** on page 43 again.

If you made mistakes in **4** or **5,** page 49, do these two again. Choose a beaver leader to put the answers on the blackboard. You did not make so many mistakes this time, did you?

All the beavers can work now on subtraction practice. Try races **2**, **3**, and **4** on pages 44 and 45. Have someone put the correct answers on the blackboard; then mark your papers. If you made mistakes in these subtraction races, try race **1** on page 44.

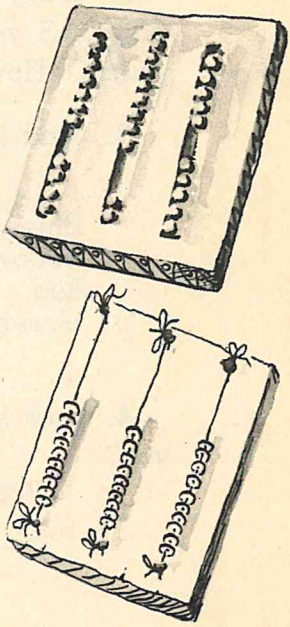
Maybe Mother or Father would like to be Mother Beaver or Father Beaver and work with you at home. The mothers and fathers of real beavers teach their children to work.

Turn now to page 52.

Beaver Builders Play They Are Romans

The Romans were people who lived many hundreds of years ago. They did not have pencils, paper, or arithmetic as we have them. They had to work with numbers, though, just as all people do.

The Romans did their number work by moving small stones up and down in little cracks or grooves dug in a board. They called this board an abacus. There were 10 stones in each groove, but only those at the bottom were in use. The number of stones at the bottom of the left groove told the number of hundreds. The number of stones at the bottom of the middle groove told the number of tens. The number of stones at the bottom of the right groove told the number of ones. The picture tells how they showed 425.



You can make an abacus. You will need a short piece of board, six nails, three pieces of string, and thirty buttons. Make the abacus as shown in the picture, with ten buttons on each string.

Swimming in the Pond

Now that you have finished another unit, your arithmetic wall is higher. Doing this page should be easy swimming for you.

1. Bob counted his sheets of paper. He had 56 sheets. If 21 of them had been used, how many had no writing on them?

2. Mary made a picture book. She used 4 blue pages, 3 yellow pages, 0 red pages, and 3 green pages. How many pages were in the book?

3. Find how many pages in each of these books.

	Cora	Tom	Jane	Carl	Ruth	Dot	Ann	Jack
Blue	4	3	1	3	5	0	2	3
Yellow	3	2	0	0	3	4	1	2
Red	2	1	6	5	0	5	4	1
Green	1	4	2	0	1	1	2	4

4. Jack subtracted these without a mistake. Can you?

483	985	839	932	796	394	769
−251	−631	−313	−221	−425	−112	−437

Unit Three

Adding Around a Campfire

Jack said, "We have 8 ham sandwiches and 4 egg sandwiches. How many do we have of both kinds?"

No one could answer quickly. Then they learned some new addition facts. Can you find how many sandwiches they had by looking at the table below?

9	7	2	6	8	4	8	3	3
2	7	9	6	3	8	4	8	9
11	14	11	12	11	12	12	11	12

6	9	7	7	5	6	7	4	5
5	3	4	6	6	7	5	7	7
11	12	11	13	11	13	12	11	12

Study the addition facts above until you can say each one quickly. Make helper cards for any facts that are hard for you.

1. Polly roasted 6 wieners, and Charles roasted 7. How many did both roast?

2. Mary toasted 7 rolls, and Jane toasted 5. How many did they both toast?

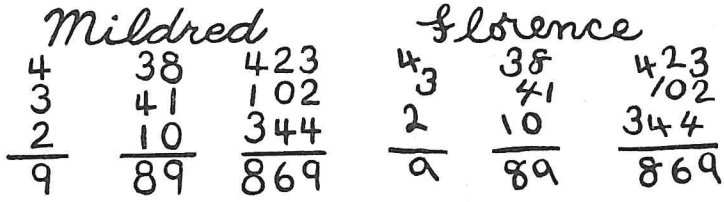
Adding Practice

Work with a friend. One will read the addition facts with their sums. The other will listen and help if needed. Begin, **2 and 9 are 11.**

1.	2+9	7+7	7+5	3+8	5+7
2.	9+3	9+2	6+5	7+4	6+6
3.	7+6	8+3	5+6	4+8	6+7
4.	8+4	4+7	3+9	0+6	9+0

Writing Numbers Neatly in Straight Columns

Study the addition examples below. Mildred always found the correct answer; Florence often made mistakes. Can you guess the reason?

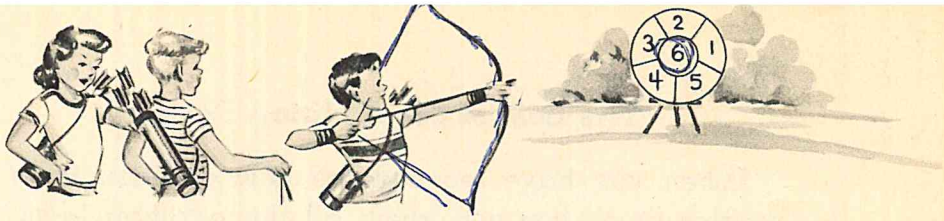


Copy these numbers neatly in straight columns and add.

5.	7, 2, 2.	32, 42, 23.	401, 230, 156.
6.	2, 4, 6.	10, 25, 41.	342, 400, 256.
7.	3, 3, 2.	43, 20, 22.	200, 567, 200.
8.	2, 4, 5.	61, 23, 13.	453, 203, 121.

Write these sums on folded paper.

9.	5	5	2	3	2	4	3	3	3
	4	2	5	3	6	5	5	3	3
	2	7	4	6	3	3	4	5	6



More About the Camping Trip

1. These are the scores some of the children made shooting arrows. Find the total score each made.

Jack	Cora	Tom	Jane	Carl	Ruth	Jim	Ann	Bob
4	3	4	5	5	6	4	3	5
2	6	3	2	4	2	3	1	3
5	3	4	6	2	5	5	6	4

2. Some of the other children did not make such high scores. They do not want you to know their names. We will call them A, B, C, and so on. Find the total score each made.

A	B	C	D	E	F	G	H	I
0	1	0	2	6	2	0	0	4
0	0	3	0	0	3	0	4	1
0	1	1	2	1	1	6	3	0

3. Jack caught 2 fish, Ned caught 3 fish, and Bob caught 6 fish. How many fish did all three catch?

4. Mary saw 7 brown birds, 3 blue birds, and 4 yellow birds. How many birds did she see in all?

5. After supper, 5 of the little girls went for a walk, 4 picked flowers, and 4 others went to the spring. How many little girls were there in all?

The Last of the Addition Facts

When you have learned the new addition facts on this page, you will know all the addition facts.

Study the addition facts in this table until you can say each one quickly. Make helper cards to help you learn them.

8	9	8	9	9	9	4	8	8
8	9	7	8	4	5	9	6	9
16	18	15	17	13	14	13	14	17
5	9	7	7	5	8	6	6	9
9	6	9	8	8	5	9	8	7
14	15	16	15	13	13	15	14	16

Say these addition facts with their sums. Begin, **9 and 7 are 16.**

1.	9+7	4+9	6+9	9+4	5+8
2.	7+8	8+7	9+6	8+8	8+9
3.	5+9	9+9	7+9	9+8	0+2
4.	8+5	9+5	6+8	8+6	5+0

Try to write the sums below without even one mistake. Write them quickly. Before you begin, though, practice the addition facts on page 53 and the addition facts above on this page.

5. Write these sums quickly on folded paper.

5	7	4	7	2	6	3	8	9
7	4	8	7	9	5	9	4	3

Under the Old Apple Tree

Billy and Betty live in the country. Jack and Mary visited them, and they all had fun picking apples.

Mary found 42 big red apples, Betty found 13, and Jack found 34. How many did all three find?

To find the sum of 42, 13, and 34, you write the numbers neatly in straight columns.

Add the ones, beginning at the top. Think 5, 9, and write **9** under 4.

Add the tens, beginning at the top. Think 5, 8, and write **8** under 3.

The sum is **89**.

Add	Check
42	42
13	13
34	34
89	89

To check, begin at the bottom and add up. In the ones column, think 7, 9, and write **9** under 4.

In the tens column, think 4, 8, and write **8** under 3.

The sum is **89**. Since you find the same sum adding up that you found adding down, the answer checks.

Write these sums on folded paper. Check.

52	50	42	33	23	33	32	24
21	21	16	34	30	25	24	55
14	25	20	22	42	41	43	10

Peeking into Your Pocketbook

A cent is sometimes called a penny. Name some things you can buy for a cent.

A nickel is worth 5 cents. Name some things you can buy for a nickel.

A dime is worth 10 cents or 2 nickels. Name some things you can buy for a dime.

The sign ¢ means cents, and you read it as cents.

1. Helen spent 25¢ for carfare, 31¢ for lunch, and 10¢ for candy. How much did she spend in all? The answer is 66¢.

25¢
31¢
10¢
66¢

2. Write these sums on folded paper.

4¢	3¢	12¢	25¢	28¢	23¢	25¢
2¢	4¢	16¢	32¢	30¢	24¢	33¢
5¢	4¢	21¢	42¢	41¢	42¢	21¢

3. Marie spent 45 cents for a book, 24 cents for writing paper, and 10 cents for pencils. How much did she spend in all?

4. What pieces of money (cent, nickel, dime) could you use to make 17¢? Alice said 3 nickels and 2 cents would make 17 cents. Was she right? Can you make 17 cents in some other way?

Spending Money

1. Carl bought a kite for 12¢ and a ball of string for 5¢. How much did the two cost?

$$\begin{array}{r} 12¢ \\ 5¢ \\ \hline 17¢ \end{array}$$

Write 5¢ under 12¢ and add. The sum is 17¢. Carl gave the clerk a dime, a nickel, and 2 cents. Was this enough to pay for the kite and the string?

2. Mrs. Hunt spent 33¢ for coffee, 14¢ for sugar, 2¢ for salt, and 10¢ for bread. How much did she spend in all?

$$\begin{array}{r} 33¢ \\ 14¢ \\ 2¢ \\ 10¢ \\ \hline 59¢ \end{array}$$

When there is an empty space in a column, as in tens column before 2¢, you skip the empty space as you add.

3. Mr. Jones spent 35¢ for lunch, 4¢ for candy, and 20¢ for carfare. How much did he spend in all?

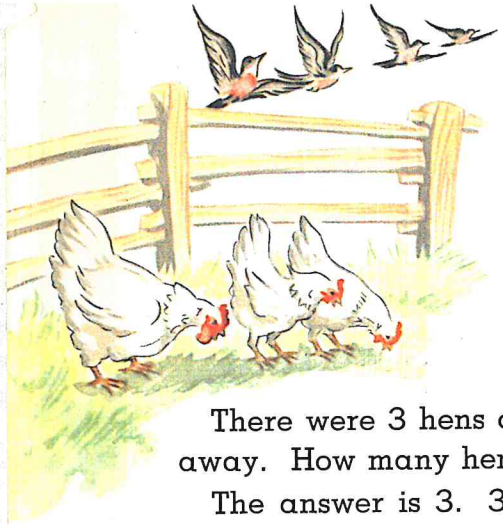
Write these sums on folded paper.

4.

36¢	41¢	11¢	53¢	18¢	23¢	51¢
12¢	25¢	35¢	21¢	30¢	40¢	26¢

5.

33¢	50¢	61¢	43¢	15¢	70¢	36¢
5¢	25¢	4¢	30¢	51¢	20¢	12¢
40¢	3¢	20¢	12¢	21¢	9¢	1¢



Zeros in Subtraction

There were 4 robins on the fence, and 4 flew away. How many robins were left on the fence?

The answer is 0.

$4-4=0$.

There were 3 hens on the ground and 0 hens ran away. How many hens were left?

The answer is 3. $3-0=3$.

Study the subtraction facts below until you can say each one quickly.

0	7	2	5	3	9	1	6	8	4
−0	−0	−0	−0	−0	−0	−0	−0	−0	−0
0	7	2	5	3	9	1	6	8	4

7	2	5	3	9	1	6	8	4
−7	−2	−5	−3	−9	−1	−6	−8	−4
0	0	0	0	0	0	0	0	0

Read again the rules on page 42 for finding the sum of 0 and any number, and for finding the sum of any number and 0.

Make up a rule for subtracting 0 from any number.

Make up a rule for subtracting a number from itself.

Say these subtraction facts quickly.

1.	5−5	3−0	7−7	5−0	2−0
2.	0−0	9−0	7−0	8−8	1−0
3.	3−3	6−6	6−0	4−4	2−2

Autumn in the Country

1. Jack found 346 nuts under a tree. Grandfather said the heavy ones were good and the light ones were bad. Grandfather said 126 of them were bad. How many good nuts did Jack have?

2. The children helped carry corn to the corn crib. Mary carried 50 ears of corn, Jack carried 12, and Tom carried 75. How many ears did they carry in all?

3. Jack's uncle put all the pumpkins in three piles. In the first pile there were 40 pumpkins. He put 45 in the next and 32 in the last. How many pumpkins did he have in all?

4. Grandmother had 74 chickens. A fox caught 24 of them. How many did she have left?

5. Jack's aunt has 60 white hens, 23 brown hens, and 5 black ones. How many has she in all?

6. Grandfather had 33 pigs and sold 10 of them. How many did he have left?

Write the remainders on folded paper.

7.	462	343	823	567	931	724	784
	242	142	323	200	500	201	380
8.	708	365	500	860	534	901	522
	208	260	100	260	230	301	120

Some New Subtraction Facts

Study the new subtraction facts below. Make helper cards for any that are hard for you.

11	14	11	12	11	12	12	11	12
−2	−7	−9	−6	−3	−8	−4	−8	−9
9	7	2	6	8	4	8	3	3

11	12	11	13	11	13	12	11	12
−6	−3	−4	−6	−5	−7	−5	−7	−7
5	9	7	7	6	6	7	4	5

Say the subtraction facts below, with their remainders. Begin, **2 from 11 is 9.**

1. 11−2 12−7 11−6 12−9 11−5

2. 14−7 11−8 12−3 11−7 13−7

3. 12−4 11−4 11−9 12−5 4−0

4. 12−6 11−3 12−8 13−6 9−9

5. Little David had 12 eggs in a box. He fell down and broke 7 of them. How many did he have left?

6. Harriet had 13 lemon cookies and ate 6 of them. How many did she have left?

7. George had 11 cents and spent 5 cents for a pencil. How much did he have left?

8. Mrs. Ray uses 13 eggs for an angel cake. If she has 9 eggs, how many more does she need for the cake?

9. Twelve children are invited to a party. Five have already come. How many have not yet come?

You Subtract to Find How Many Are Left

1. Miss Martin had 38 arithmetic books. She sent 13 of them to another room. How many did she have left?

2. There were 25 pieces of chalk. Miss Martin told Mary to pick out the colored chalk and put it in a different box. Mary picked out 10 pieces. How many pieces were left?

3. Miss Martin gave Jack 43 pencils to sharpen. After he has sharpened 12, how many are left?

4. There were 37 books on a table. Jack put 24 of them on a shelf. How many were left on the table?

5. There were 15 words on the blackboard. Jane erased 15 of them. How many were left?

6. Write these remainders on folded paper.

114	137	123	119	124	147	138
−23	−64	−83	−41	−63	−75	−60

The Last of the Subtraction Facts

Study the new subtraction facts below. Make helper cards for any that are hard for you.

16	18	15	17	13	14	13	14	17
−8	−9	−7	−8	−4	−5	−9	−6	−9
8	9	8	9	9	9	4	8	8

14	15	16	13	15	14	15	16	13
−9	−6	−9	−5	−9	−8	−8	−7	−8
5	9	7	8	6	6	7	9	5

Say the subtraction facts below, with their remainders. Begin, **7 from 16 is 9.**

1. 16−7 18−9 17−8 14−6 13−4

2. 16−8 14−9 13−8 17−9 14−5

3. 15−6 13−9 15−8 16−9 13−7

4. 15−7 14−8 13−5 15−9 13−6

These are additions, each with a missing number. Write the missing numbers.

5.

8	9	7	8	4	5	9	6	9
*	*	*	*	*	*	*	*	*
16	18	15	17	13	14	13	14	17

6.

9	6	9	5	9	8	8	7	8
*	*	*	*	*	*	*	*	*
14	15	16	13	15	14	15	16	13

Grandmother's Birthday Party

1. A handkerchief that Jane wants to buy for Grandmother costs 15 cents. Jane has 8 cents. How many more cents does she need to buy the handkerchief?

2. A book costs 45 cents. Mary has 25 cents. How much more does she need to buy the book for Grandmother?

3. Grandmother is having a birthday cake. She is 66 years old. They have only 40 candles. How many more candles do they need?

4. Jane wants to give Grandmother 66 roses. She has found 34 roses. How many more does she need?

5. Grandmother will have 6 children and 14 grandchildren at the party. How many more grandchildren than children will be there?

6. Dick is 9 years old. He wants to know how long it will be until he is 17 years old.

7. Peggy is 8 years old. She wants to know how long it will be until she is 15 years old.

Write these remainders on folded paper.

8.

139	136	174	165	128
64	80	94	85	86

The 100 Addition Facts Put Together

Write the sums as fast as you can on folded paper.

1.	6	0	4	3	0	1	3	0	3	0
	1	9	3	1	7	0	6	8	3	3
2.	2	4	4	8	1	9	4	7	5	1
	4	5	2	0	4	0	4	1	5	8
3.	0	1	0	2	5	1	2	1	1	2
	0	7	1	9	4	6	0	1	9	1
4.	5	7	0	4	3	2	5	0	9	1
	0	7	5	0	2	5	1	4	1	5
5.	2	8	2	1	7	3	4	3	2	3
	6	3	3	2	3	4	8	5	8	8
6.	8	0	3	6	4	9	2	6	1	7
	1	2	0	2	1	2	2	0	3	0
7.	4	2	6	6	8	8	9	9	7	7
	6	7	7	5	7	6	7	3	5	9
8.	5	3	8	8	6	9	7	3	6	0
	2	9	9	4	3	4	2	7	6	6
9.	6	5	6	5	9	5	4	7	6	7
	4	3	8	8	5	9	7	8	9	6
10.	8	9	8	5	4	7	5	9	9	8
	8	9	2	6	9	4	7	6	8	5

The 100 Subtraction Facts Put Together

Write the remainders as fast as you can on folded paper.

1.	7	9	7	4	7	1	9	8	6	3
	6	0	4	3	0	1	3	0	3	0
2.	6	9	6	8	5	9	8	8	10	9
	2	4	4	8	1	9	4	7	5	1
3.	0	8	1	11	9	7	2	2	10	3
	0	1	0	2	5	1	2	1	1	2
4.	5	14	5	4	5	7	6	4	10	6
	5	7	0	4	3	2	5	0	9	1
5.	8	11	5	3	10	7	12	8	10	11
	2	8	2	1	7	3	4	3	2	3
6.	9	2	3	8	5	11	4	6	4	7
	8	0	3	6	4	9	2	6	1	7
7.	10	9	13	11	15	14	16	12	12	16
	4	2	6	6	8	8	9	9	7	7
8.	7	12	17	12	9	13	9	10	12	6
	5	3	8	8	6	9	7	3	6	0
9.	10	8	14	13	14	14	11	15	15	13
	6	5	6	5	9	5	4	7	6	7
10.	16	18	10	11	13	11	12	15	17	13
	8	9	8	5	4	7	5	9	9	8

The Reds and the Blues Race Again

Read the directions for the addition races on page 18. Do these races in exactly the same way. Check the answers for each race before going to the next race. Which team wins?

Race 1. Ready! Go!

Write the sums on folded paper.

1.	7	6	6	7	5	9	0
	2	2	3	1	4	0	6
	6	5	5	8	4	7	5
2.	36	70	63	46	27	12	
	43	29	32	42	51	65	
3.	97	84	76	93	85	67	
	40	60	42	75	62	51	

Race 2. Ready! Go!

Write the sums on folded paper.

1.	7	5	4	3	6	8	5
	2	4	3	5	2	1	3
	6	3	6	4	5	4	4
2.	43	41	30	42	53	61	
	26	32	64	34	21	16	
	60	65	25	23	74	42	

Race 3. Ready! Go!

Write the remainders on folded paper.

1.	92	89	56	71	48	60
	51	74	20	41	26	30
2.	378	534	876	513	862	
	153	434	106	310	400	
3.	115	127	155	129	135	
	54	43	82	87	50	

Race 4. Ready! Go!

Write the answers.

1.	9+6	7+8	5+7	6+8
2.	9+7	6+9	5+8	7+9
3.	8+5	6+7	8+7	4+9
4.	13−9	17−8	14−6	11−4
5.	12−7	13−4	14−9	14−5
6.	13−6	15−7	17−9	13−4

Race 5. Ready! Go!

Copy neatly in straight columns and add.

1. 6, 2, 7
2. 23, 4, 22
3. 40, 10, 7
4. 26, 52, 71
5. 342, 23, 524
6. 750, 220, 18

Copy neatly in straight columns and subtract.

7. 65 from 138
8. 92 from 166
9. 83 from 145
10. 434 from 565
11. 462 from 784
12. 301 from 931

+ Must I Add or Must I Subtract? −

Each problem below gives you two facts and asks you a question. Before beginning to work a problem, ask yourself these questions:

What is the question the problem asks?
What are the two facts the problem gives?
What must I do to find the answer?

When you know the answers to these three questions, you can begin to work the problem.

1. On a bird hunt, George saw 9 sparrows and 8 other birds. How many birds did he see in all?

2. Agnes is 9 years old, and Ruth is 17 years old. In how many years will Agnes be as old as Ruth is now?

3. Arline is 2 years older than Agnes. How old is Arline?

4. Mr. Glenn is 39 years old, and Mrs. Glenn is 37 years old. What is the difference in their ages?

5. Mr. Glenn weighs 211 pounds, and Mrs. Glenn weighs 162 pounds. How much do they both weigh?

6. Bobby Glenn weighs 82 pounds. Bobby weighs how many pounds less than his mother?

7. Bobby weighs 82 pounds, and an older sister weighs 94 pounds. How many pounds do they both weigh?

8. How much more does the older sister weigh than Bobby weighs?

9. A pencil costs 5 ¢, writing paper costs 12 ¢, and an eraser costs 4 ¢. How much do all three cost?

A Long Walk in the Country

1. Bob found 43 nuts and gave 12 of them to the squirrels. How many nuts did he keep?

2. Helen picked 37 colored leaves. There were 24 yellow leaves, and the rest of them were red. How many were red?

3. Mary gathered 20 maple leaves and 19 oak leaves. How many leaves did she gather?

4. There were 24 blackbirds sitting on a fence. Harry scared 11 of them away. How many were left?

5. The children saw 5 big pigs and 9 little pigs in a pen. How many pigs were in the pen?

6. Alice brought 14 sandwiches, Jack brought 10 sandwiches, Mary brought 2, and Joe brought 11. How many sandwiches did all bring?

7. Helen brought 48 cookies. The children ate 35 of them as they walked. How many were left?

8. On the way home, Jane bought some apples. Jane had 15 cents, and the apples cost 15 cents. How much money did Jane have left?

9. Paul had 14¢ when he left home. When he reached home he found a hole in his pocket and only 8¢. How many cents had he lost?

The Old Fur Hunter Makes Some Problems

When you have worked the problems on this page, make up a short story about the old fur hunter. Tell how you think he looked, where he lived, and what work he did. Your teacher may allow some of you to tell your stories before the class.

1. "I found 72 arrowheads, 33 stone knives, and 2 stone hammers in a cave. How many pieces did I find in all?"

2. "One evening I counted 397 bats as they flew out of the cave. Before I went to sleep, 225 bats had come back to the cave. How many were still out?"

3. "One winter I caught 223 skunks, 54 foxes, and 21 minks. How many did I catch in all?"

4. "One day last week I found 37 duck eggs and 14 goose eggs. How many more duck eggs than goose eggs did I find?"

5. "Yesterday I caught 13 bass, 4 catfish, and 21 trout. How many fish did I catch altogether?"

6. "An Indian hunter brought me 13 beaver skins, 20 fox furs, and 113 mink. How many did he bring in all?"

A Page for Busy Beavers

Write the sums on folded paper.

1.

5	6	8	3	5	9	8	6	8
2	4	8	9	3	9	9	8	2

2.

				23	14	60
		54	72	12	52	15
93	87	32	24	40	22	11
76	52	61	73	43	11	72

Write the remainders on folded paper.

3.

10	16	8	18	14	10	13	11	14
−2	−8	−5	−9	−6	−8	−5	−5	−9

4. 6 − 0 13 − 8 13 − 7 15 − 6

5. 15 − 9 15 − 7 11 − 4 12 − 5

6. 17 − 9 14 − 5 13 − 4 15 − 8

7.

189	143	365	569	168	173
−98	−52	−124	−427	−93	−82

If you made six mistakes or less, you are ready for page 75.

If you made more than six mistakes, you must do some patching. You should work on page 74.

Help for Mending the Wall

1. Helen said that "6 and 6 are 12" is easy, but that "6 and 7 are 13" is hard. Oscar said they were both easy, for 6 and 7 is just 1 more than 6 and 6. Can you explain what Oscar meant?

2. Tell an easy way to say each of these addition facts quickly and correctly.

5	6	6	7	7	8	8	9
6	5	7	6	8	7	9	8

3. Morris said adding 9's was hard. Dorothy said, "Oh, that's easy. The answer ends in a figure just 1 less than the number you add to 9." Study these addition facts and tell what she meant.

9	9	8	3	9	9	6	4	9	7
4	7	9	9	5	2	9	9	6	9
13	16	17	12	14	11	15	13	15	16

4. Harold used the addition facts to help him with subtraction. Instead of thinking, "8 from 11 is 3," he would think "8 and 3 make 11."

Say the missing numbers.

8	9	6	7	4	3	5	8	7	6
*	*	*	*	*	*	*	*	*	*
11	16	11	15	13	11	12	17	10	15

Harder Problems for Beaver Builders

1. There was space in Ella's stamp book for 288 stamps. She now has 135 stamps. How many more does she need to fill the book?

2. John had 132 stamps and bought 127 more. How many did he have then?

3. Alice had 66¢ and spent 43¢. How much did she have then?

4. Tony had 63¢. How much more does he need to buy a baseball that costs 95¢?

5. An indoor ball costs 50 cents, and a bat costs 45 cents. How much do they both cost?

6. Lillian went to school 187 days last year, and George went 173 days. How many more days did Lillian go than George?

7. Mr. Weaver had 243 sheep in one pasture and 325 in another. How many sheep did he have in the two pastures?

8. Ray is 11 years old, and his grandfather is 76 years old. What is the difference in their ages?

9. Mr. Gay drove 157 miles one day and 201 miles the next day. How many miles did he drive in the two days?

Swimming in the Pond

Write the sums.

1. $7+4$ $6+7$ $2+9$ $3+8$ $5+7$

2. $4+9$ $7+8$ $5+9$ $8+6$ $9+8$

3.

53	87	92	85	84	94	73	94
64	72	41	92	34	65	66	34

4.

40	60	66	91	93	50	88	37
80	54	90	94	43	78	50	91

5.

47	68	72	73	64	75	90	84
71	61	52	96	83	73	75	80

Write the remainders.

6. $11-7$ $13-5$ $17-9$ $15-6$ $13-8$

7. $12-3$ $14-7$ $11-5$ $17-8$ $13-4$

8.

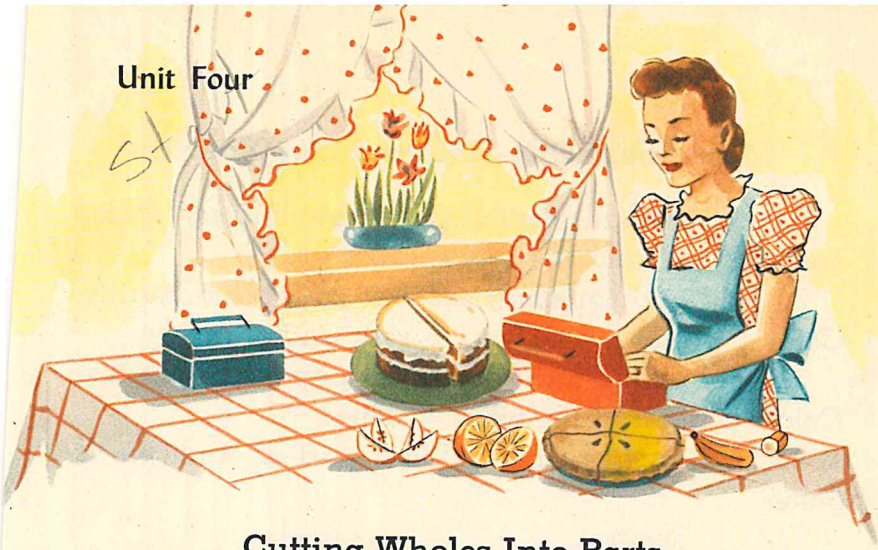
143	129	141	153	129	188	154	117
91	65	51	80	76	96	73	46

9.

125	166	147	167	136	115	123	149
54	95	85	71	72	93	82	82

10.

157	119	128	112	132	127	134	160
92	84	91	31	72	40	91	80



Cutting Wholes Into Parts

1. Mother divided the orange into 2 parts that were the same size. She called them equal parts. What do you call one of these parts?

2. Is the banana cut into 2 equal parts? Would it be right to call one piece of the banana a half banana?

3. Into how many parts is the pie cut? Do you think these parts are equal?

4. Find something else in the picture that is cut into fourths.

One-half may be written $\frac{1}{2}$; one-fourth may be written $\frac{1}{4}$.

5. Draw a circle. Call it a lemon pie, and color $\frac{1}{2}$ of it yellow.

6. Draw another circle. Call it a cherry pie, and color $\frac{1}{4}$ of it red.

More About One-Half and One-Fourth

1. Fold a small sheet of paper into halves. Color one half red and the other half blue.

2. Fold another small sheet of paper into fourths. Color $\frac{1}{4}$ yellow, $\frac{1}{4}$ blue, $\frac{1}{4}$ red, and $\frac{1}{4}$ green.

3. Fold another small sheet of paper into fourths. Color $\frac{1}{4}$ red and the other $\frac{3}{4}$ blue.

4. Look at these pies. What part of each pie is gone?

5. Show your teacher $\frac{1}{2}$ of your lead pencil.

6. Cover $\frac{1}{2}$ of your ruler.

7. Draw an apple on the blackboard. Mark it into halves.

8. Draw each of these on the blackboard and divide each into fourths.

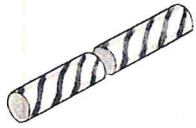
a pie a piece of paper an orange

9. Draw a glass that is $\frac{1}{2}$ full of milk.

10. Draw a glass that is $\frac{1}{4}$ full of milk.

11. What pictures on this page show things divided into fourths?

12. What pictures on this page show things divided into halves?



Learning How the Clock Tells Time

"Get up! Get up!" says the clock. "It is exactly 8 o'clock. You will be late for school."

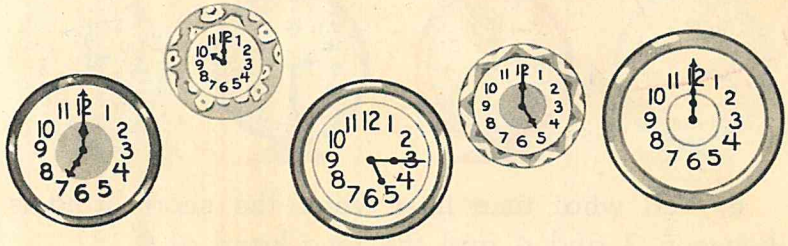
How can you tell that the clock says "8 o'clock"?

You see that the clock has two hands. One hand is short, and the other is long. The short hand is called the hour hand; when it points to a number on the clock, it is telling what hour it is. The long hand is called the minute hand.

When it is exactly 8 o'clock, the hour hand is pointing at 8 and the minute hand is pointing at 12. The minute hand always points to 12 when the time is an exact hour.

1. Which of the clocks below does not tell an exact hour? How do you know?

2. Read the time on all the other clocks.



Whole Hours and Half Hours

Draw five circles. Number them for clock faces. Make hands on each one so as to show these hours: 9 o'clock; 3 o'clock; 11 o'clock; 6 o'clock; 12 o'clock.

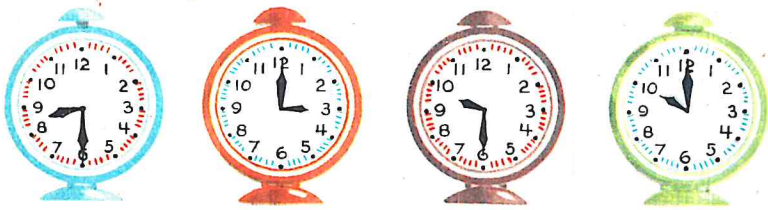
Tell what time it is when:

1. The short hand is at 7 and the long hand at 12.
2. The short hand is at 5 and the long hand at 12.
3. The short hand is at 8 and the long hand at 12.
4. The short hand is at 4 and the long hand at 12.

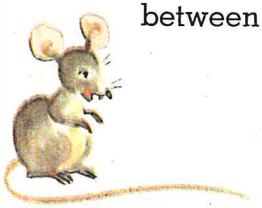
When the clock tells a whole hour, the long hand is at 12.

Put your finger at 12 and move it around to 6 on a clock face. This is half way around the clock. When the long hand is at 6, it is "half past" the hour. The clock at the right tells us it is half past 7 o'clock. Where does the short hand of this clock point?

5. What time is it on each clock below? How can you tell the hour?



6. Tell what time it is when the short hand is between 3 and 4 and the long hand at 6.



A Quarter Past or a Quarter to the Hour

The clock face at the right is divided into fourths or quarters.

When the long hand is at 3, it is a "quarter past" the hour nearest to the hour hand. The clock at the right tells us it is a quarter past 1 o'clock.

Tell the time on each clock on page 82. For each, tell where the hour hand points and where the minute hand points.

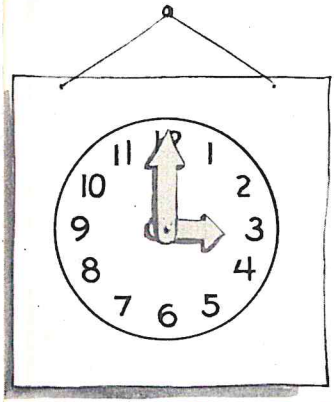
When the long hand is at 9, it is a "quarter to" the hour nearest to the hour hand. The clock at the left tells us it is a quarter to 7 o'clock.

Where does the short hand of this clock point?

Draw clocks showing 2:45, 4:45, 10:45, 1:45.

1. What time is it when the short hand of the clock is between 11 and 12 and the long hand at 3?

2. What time is it when the short hand is between 12 and 1 and the long hand is at 9?



Setting the Clock Hands to Tell Time

In Emily's school there is a cardboard clock face with hands that can be moved.

When Miss Martin asks a child to show a certain time on the clock face, he first sets the minute hand in place.

The minute hand must point:

Straight up at an exact hour.
Straight down at half past an hour.
Straight to the right at a quarter past an hour.
Straight to the left at a quarter to an hour.

Then the child sets the hour hand in place.

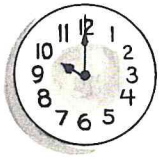
The hour hand must point:

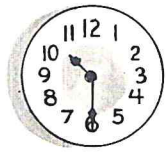
Directly at a number at an exact hour.

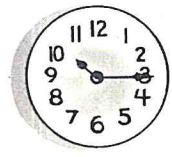
At the middle point between two numbers at half past an hour.

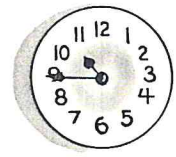
One-fourth the way from one number to the next at a quarter past an hour.

Three-fourths the way from one number to the next at a quarter to an hour.


Exact Hour


Half Past

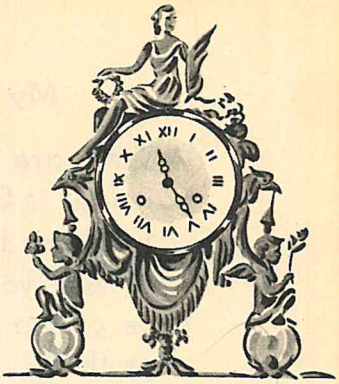

Quarter Past


Quarter To

Set the hands on a clock face to show these times:

1. 8 o'clock
2. Half past 4 o'clock
3. Quarter past 12 o'clock
4. Quarter to 6 o'clock

Learning to Read Roman Numerals



Did you ever see a clock face with numbers like this? These are called Roman numerals. In olden times, the Romans used letters, as I, V, and X, to write their numbers.

This is how the Romans used letters to write numbers.

I means 1; II means 2. What does III mean?

V means 5; VI means 6. What do you think VII means? What do you think VIII means?

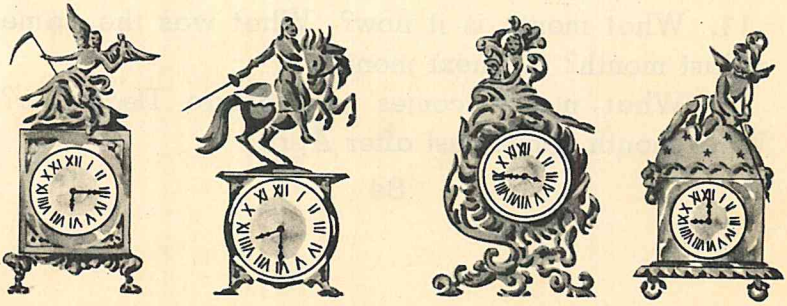
X means 10; XI means 11. What do you think XII means?

On some clock faces, 4 is written as IIII. You will always write it as IV. Look below and find how 9 is written.

Study the two kinds of numbers below:

I = 1	IV = 4	VII = 7	X = 10
II = 2	V = 5	VIII = 8	XI = 11
III = 3	VI = 6	IX = 9	XII = 12

1. Write these Roman numerals in our numbers.
   II V X I VI VIII XI III IV VII IX
2. Write these numbers as Roman numerals.
   3 6 8 11 9 5 7 12 4 10
3. What is the time on each of these clocks?



My! My! How Time Does Fly!

There are 7 days in a week. The first day on the calendar is Sunday and the last day is Saturday.

1. Name the days of the week in order.

2. Ask your teacher to write the names of the days of the week on the blackboard so you can copy them.

3. How many days of the week are school days? Name them in order.

4. What day is today? What day was yesterday? What day will tomorrow be?

5. What day comes just before Sunday?

6. What day comes just after Tuesday?

7. On a calendar the days of the week are written a short way: Sun. for Sunday, Mon. for Monday, and so on. Write all the days of the week in order the short way.

There are 12 months in a year. The first month is January, and the last month is December.

8. Name the months of the year in order.

9. Ask your teacher to write the names of the months in order on the blackboard so you can copy them.

10. In what month does school begin? In what month does it close?

11. What month is it now? What was the name of last month? Of next month?

12. What month comes just before December? What month comes just after April?

start

The Seasons

There are 4 seasons in the year: spring, summer, fall, and winter. There are 3 months in each season. In our part of the world the spring months are March, April, and May.

1. Name the summer months in order.
2. Name the fall months in order.
3. Name the winter months in order.
4. In what season do little seeds wake up?
5. In what season does each of these holidays come? Christmas – Thanksgiving – July 4 – Halloween – Easter
6. Draw a picture showing something children may do each season. In the winter, you could show children skating, making a snowman, or racing on their sleds.

Here are some races that are fun in any season! See if you can be among the first to finish.

Race 1. Write remainders only. Ready! Go!

168	185	148	126	174	159
83	91	54	65	81	95

Race 2. Write remainders only. Ready! Go!

498	475	829	473	985	689
273	152	615	341	823	471

Race 3. Write remainders only. Ready! Go!

698	694	389	594	389	796
536	452	167	382	157	483

You Must Know Your Money Just as Grown-Ups Do

As you grow older, Mother and Father will let you buy at the stores. You must learn about money so that you will know how much to pay and always get the right change when you buy.

A quarter is worth 25 cents, or 5 nickels, or 2 dimes and a nickel.

A half dollar is worth 50 cents, or 10 nickels, or 5 dimes, or 2 quarters.

The dollar is worth 100 cents, or 20 nickels, or 10 dimes, or 4 quarters, or 2 half dollars.

Most of the dollars you see are made of paper. A paper dollar has the same value as a silver dollar.

Writing Dollars and Cents

You write six dollars and seventy-five cents as $6.75. The sign $ before a number tells that the number means dollars. A dot is used to separate dollars from cents. We will call this dot the cents point.

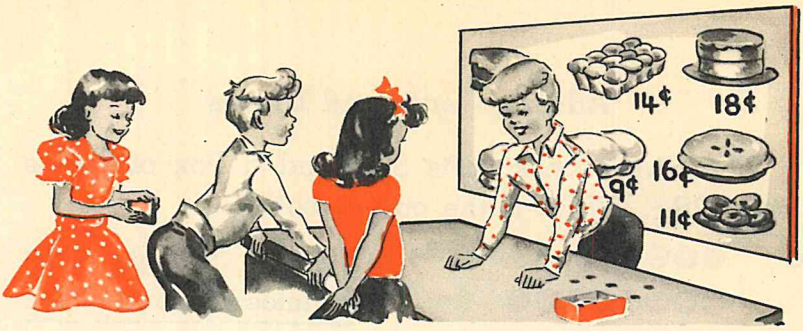
You read $3.68 as three dollars and sixty-eight cents.

Use the dollar sign, $, and the cents point and write in numbers:

1. Five dollars and thirty-seven cents
2. Twelve dollars and eighty-nine cents

Read the following:

3.	$4.19	$6.98	$3.15	$1.10	$2.25
4.	$8.14	$5.75	$7.72	$4.30	$3.75



Playing Store

Make a store like the picture. Make play money.

Play that you are Mrs. Brown and have bought a layer cake for 35¢. Give the baker a half dollar. The baker will put the half dollar in his cash drawer and count the change for you. He will say "35 cents," put a nickel on the counter and say "40 cents," and put a dime beside the nickel and say "50 cents."

The baker made change by adding up to the amount that Mrs. Brown gave him. Let someone in class explain this so that each one understands.

1. Tell how the baker would make change from a quarter for each of these sales:

18¢ 14¢ 9¢ 7¢ 16¢ 23¢ 11¢ 21¢

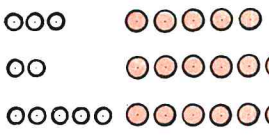
2. Tell how the baker would make change from a half dollar for each of these sales:

45¢ 15¢ 11¢ 35¢ 36¢ 27¢ 25¢ 42¢

3. Draw pictures of pies, cakes, cookies, and other bakery goods on the blackboard. Put the price on each one. Choose someone to sell. Use your play money and buy what you want. The one who is selling will make the change. You should check to see that he does not make a mistake.

Adding Cents and Dimes

A drawing book costs 35¢ and a box of paints costs 28¢. What is the cost of both?



=3 dimes 5 cents = 35¢

=2 dimes 8 cents = 28¢

5 dimes 13 cents = 63¢

Explain why 5 dimes 13 cents has the same value as 6 dimes 3 cents, or 63¢.

Here is a shorter way to add 35¢ and 28¢. Write 28¢ under 35¢. The 5 and 8 are in ones column or cents column. The 3 and 2 are in tens column or dimes column.

Think 5 and 8 are 13. This means 3 cents and 1 dime. Write the **3** under 8, and remember the 1 dime until you add the dimes column.

35¢
28¢
63¢

Now add the dimes column. The 1 dime you are carrying in your mind and 3 make 4. Think 4 and 2 are 6. Write **6** under 2. Write ¢ after **63.**

The answer is **63** cents.

1. Tell how many dimes and how many cents in:

43¢ 26¢ 37¢ 15¢ 48¢ 12¢ 29¢ 51¢

2. Write the sums.

43¢	26¢	37¢	48¢	37¢	29¢	18¢	46¢
29¢	15¢	44¢	37¢	26¢	15¢	25¢	38¢

Adding Practice

Knife	48¢	Game	25¢	Airplane	36¢
Train	38¢	Doll	46¢	Book	27¢
Tank	18¢	Kite	17¢	Gun	45¢

1. Tell how many dimes and how many cents it takes to buy each toy above.

2. Explain how 7 dimes 16 cents would buy a knife and a train.

3. Explain how 8 dimes 6 cents would buy a knife and a train.

4. Add the shorter way and find the cost of a knife and a train.

Add the shorter way and find the cost of:

5. A knife and a kite

6. An airplane and a gun

7. A train and a doll

8. A doll and a book

9. A tank and a game

10. A kite and a gun

11. Choose two things from the list above that you would like to have. How much would the two things cost?

12. Study the additions below. Then cover the row of answers, and write the sums on paper.

28	45	59	36	44	25	17	49
33	19	15	45	28	39	34	38
61	64	74	81	72	64	51	87

Subtracting Cents and Dimes

Fred had 58¢ and spent 27¢ of it. How much did he have left?

Write 27¢ under 58¢, and subtract. Think 7 cents from 8 cents is 1 cent. Write **1** under 7. Think 2 dimes from 5 dimes is 3 dimes. Write **3** under 2. Write ¢ after the remainder 31. The answer is 31¢.

58¢
27¢
31¢

Jerry had 56¢ and spent 29¢ of it. How much did he have left?

Write 29¢ under 56¢, and subtract. You cannot subtract 9 cents from 6 cents. You have to change 1 dime to cents, and think of 56¢ as 4 dimes 16 cents. Think 9 cents from 16 cents is 7 cents. Write **7** under 9. Think 2 dimes from 4 dimes is 2 dimes. Write **2** under 2. Write ¢ after the remainder **27**. The answer is **27¢**.

56¢
29¢
27¢

56¢ = 5 dimes 6 cents = 4 dimes 16 cents
29¢ = 2 dimes 9 cents = 2 dimes 9 cents
2 dimes 7 cents = 27¢

Say the missing numbers.

1. 54¢ = 4 dimes ? cents 61¢ = 5 dimes ? cents
2. 45¢ = ? dimes 15 cents 32¢ = ? dimes 12 cents
3. 28¢ = ? dimes 18 cents 44¢ = ? dimes 14 cents
4. 35¢ = 2 dimes ? cents 73¢ = ? dimes 13 cents
5. 55¢ = 4 dimes ? cents 62¢ = 5 dimes ? cents

Subtracting Practice

Write the remainders on folded paper.

1.

54¢	61¢	45¢	32¢	53¢	92¢	51¢
23¢	21¢	33¢	20¢	42¢	51¢	31¢

2.

53¢	62¢	43¢	35¢	56¢	94¢	53¢
28¢	35¢	15¢	18¢	39¢	45¢	37¢

3. I had 75 cents and spent 39 cents for a book. How much did I have left?

4. A knife costs 45 cents. If I have 31 cents, how much more do I need to buy the knife?

5. Jack had 28 cents and wanted to buy a knife that cost 45 cents. How much more does he need?

6. Mr. Dolan is 27 years old, and his uncle is 63 years old. What is the difference in their ages?

Write 27 under 63, and subtract. You cannot take 7 from 3. Think of 63 as 5 tens and 13 ones. Think 7 ones from 13 ones is 6 ones, and write **6** under 7. Think 2 tens from 5 tens is 3 tens, and write **3** under 2. The answer is **36**.

Write		*Think*
63	=	*5 13*
27	=	*2 7*
36		

7. Mr. Smith is 36 years old and his uncle is 65 years old. What is the difference in their ages?

8. Subtract.

54	71	86	63	95	37	40	34
26	39	67	18	46	19	22	15

A Visit to Your Grocery Store

Ask your grocer about these things and tell the class what you find out.

1. What time does the grocer open his store in the morning? Draw a clock face and show this time.

2. What does the grocer have to do to get ready before people come to buy?

3. Make a list of the furniture a grocer needs in his store. Tell the use of each.

4. Make a long list of the things the grocer sells in his store.

5. Draw a picture of a grocery store.

6. Where does the grocer keep the money he gets when he sells things?

7. When people buy from the grocer, do they always pay him then, or do some wait and pay later?

8. How does the grocer make money for himself?

9. Find out where the grocer gets the things he sells. Whom does he have to pay to get these things?

10. Would you like to be a grocer?

You can make a play grocery store in your room. Get some pictures of things sold in grocery stores. Pin the right price to each thing.

11. A can of cocoa costs 28¢, and a can of pears costs 27¢. How much do they both cost?

12. There are 48 cans on one shelf, and 36 cans on another. How many cans are on both shelves?

13. Make up 5 problems about the grocery store in your room.

Making a Shopping List

If you are going to the grocery store, you should make a shopping list of the things you want to buy.

Sale of Groceries

Lettuce	6¢	Pineapple	43¢	Butter	36¢
Beets	7¢	Bananas	35¢	Bacon	32¢
Carrots	8¢	Lemons	30¢	Eggs	38¢
Celery	9¢	Oranges	39¢	Ham	45¢

1. Bacon, butter, and ham are sold by the pound. Eggs, lemons, bananas, and oranges are sold by the dozen in some places, and by the pound in other places. Find out how each of the other things is sold.

2. What is the cost of a dozen oranges and a bunch of beets?

3. What is the cost of a pound of ham and a stalk of celery?

4. What is the cost of a dozen lemons and a bunch of carrots?

5. Find two things you can buy for exactly 43¢.

6. Find two things you can buy for exactly 45¢.

7. Find three things you can buy for exactly 21¢.

8. Find three things you can buy for exactly 55¢.

9. How much change would you get from a quarter if you bought a stalk of celery?

10. How much change would you get from a half dollar if you bought a pound of butter?

11. How much change would you get from a dollar if you bought a dozen eggs?

The Reds and the Blues Race Again

Read the directions for the addition races on page 18. Do these races in exactly the same way.

Race 1. Write the sums on folded paper.

1.

			4	56	24	37	63
9	65	468	2	10	21	20	15
8	30	521	7	31	10	21	11
					63	41	40

2.

35¢	15¢	26¢	29¢	25¢	43¢	47¢
12¢	36¢	46¢	35¢	25¢	29¢	27¢

Race 2. Write the remainders on folded paper.

1.

11	16	14	13	12	13	17	15
5	9	6	7	5	8	8	6

2.

17¢	72¢	85¢	898	548	398	829
9¢	26¢	58¢	400	317	163	629

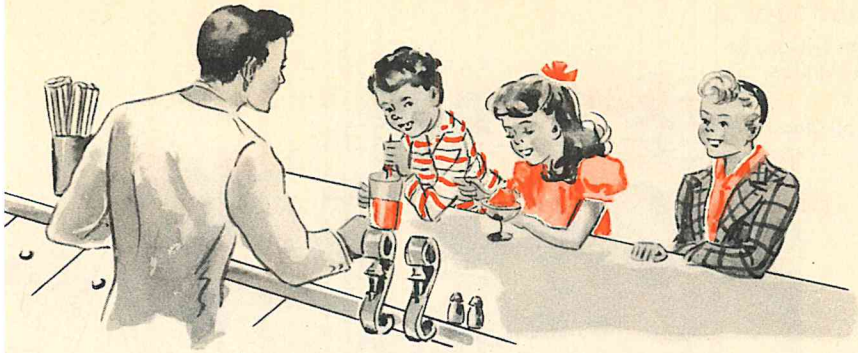
Race 3. Write the remainders on folded paper.

1.

55¢	63¢	37¢	94¢	75¢	26¢	35¢
34¢	42¢	21¢	52¢	44¢	20¢	15¢

2.

94¢	56¢	65¢	43¢	62¢	53¢	61¢
35¢	29¢	28¢	25¢	15¢	38¢	15¢



Problems of a Soda Clerk

1. Jane ate a 15-cent dish of ice cream, and Bobby ate a 10-cent chocolate soda. How much must they pay the soda clerk?

2. The clerk said he got 36 bricks of ice cream yesterday and sold 22 of them. How many bricks did he have left?

3. He said he had ordered for today 15 bricks of strawberry ice cream, 12 bricks of vanilla ice cream, and 12 bricks of chocolate ice cream. How many bricks did he order altogether?

4. The soda clerk was very busy. He said he had sold 40 vanilla ice cream cones and 36 chocolate cones. How many cones had he sold?

5. Jane wanted a small bag of cookies to take home to Mother. The clerk said he had had 54 bags and had sold 42 bags. How many bags of cookies did he have left?

6. Bobby counted the glasses he saw. There were 25 on the shelf, 2 on the counter, 1 in the clerk's hand, and 10 waiting to be washed. How many glasses were there in all?

What Can We Get for Our Money?

1. Jack bought a candied apple and a giant lollipop. What was the cost of both?

2. Find the cost of a large candy bar, a nut bar, and a balloon.

3. What two things to eat can you buy for exactly 13¢? For exactly 11¢?

4. What two toys can you buy for exactly 16¢? For exactly 14¢?

5. What will Bobby have to pay for a balloon, a boat, and a ball?

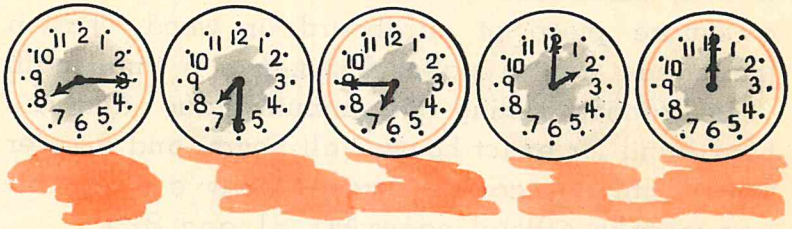
6. Find the cost of a bag of marbles, a nut bar, and a giant lollipop.

7. How much will each child have to pay?

Jack buys	Mary buys	Jane buys
Boat	Giant lollipop	Marbles
Nut bar	Balloon	Balloon
Candied apple	Ball	Nut bar
	Nut bar	

Another Page for Busy Beavers

1. What time is it by each of these clocks?



2. At 6 o'clock the minute hand is at ? , and the hour hand is at ? .

3. At half past three o'clock the minute hand is at ? , and the hour hand is half way between ? and ? .

4. Write in Roman numerals: 7, 12, 11, 8, 9.

5. How many Tuesdays are in the month shown at the right? On what dates do the Tuesdays fall?

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

6. How many Saturdays are in the month shown at the right? On what dates do the Saturdays fall?

Those who made more than five mistakes will work on page 98. All others will work on page 99.

Help for Mending the Wall

1. Beavers are good workers. You can make a play clock face with hands. Draw the face on a square piece of cardboard or wood. Fasten the hands with a paper fastener or a small nail.

2. Practice setting the minute hand and the hour hand for exact hours, half hours, and quarter hours until you can do each quickly and without any mistake. (Read pages 80, 81 and 82.)

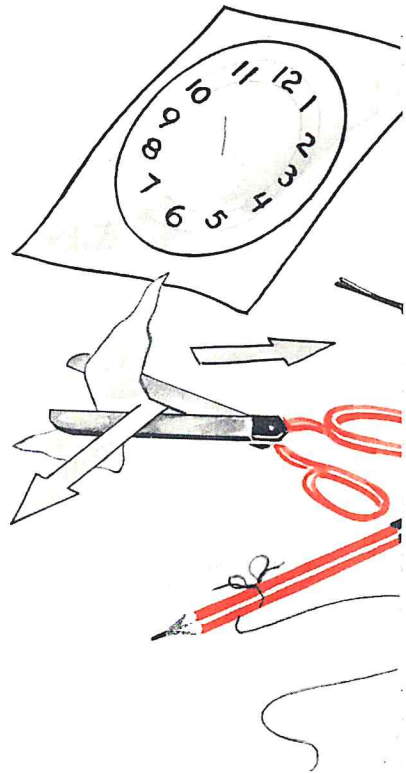
3. Practice telling the time when someone else has set the hands.

4. Since beavers are such good workers, you can make a calendar for this month.

5. On what day of the week is the first day of the month? The last day?

6. What is the date of the first Wednesday of the month? The third Monday of the month?

7. If you do not understand Roman numerals, study page 83 again.



A Page for Beaver Builders

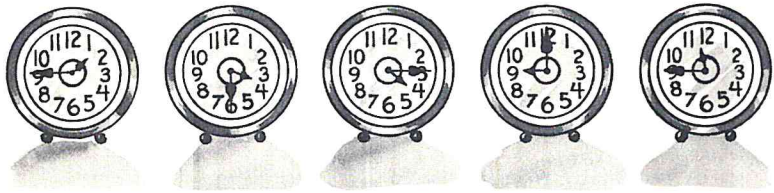
Strange Ways of Telling Time

Long ago people did not have clocks. Some people told time with an hour glass. One part of the hour glass was filled with sand. The sand dropped through a little opening into the other part. How long do you think it would take all the sand to drop from one part of the hour glass to the other part?

Other people have told time with a sun dial. From morning till evening, the sun appears to move from east to west. In the early morning, shadows are long and reach toward the west. At noon shadows are very short. In the late afternoon, shadows are long again and reach toward the east. The shadow on a sun dial tells the time.

Swimming in the Pond

1. What time is it by each of these clocks?



Draw clock faces to show these times.

2. Ten o'clock

3. Half past two o'clock

4. Quarter past one o'clock

5. Quarter to six o'clock

6. Write these Roman numerals in figures.

XI VII XII VIII III X IX IV

Write these sums on folded paper.

7.

82	65	92	57	46	25	72	65
54	32	83	32	31	24	17	50

8.

94	83	45	73	53	70	60	88
11	56	40	14	53	32	26	70

9.

430	468	240	145	100	230	560
210	520	126	521	798	603	220

Counting the Flags

1. The class had a flag drill. Mildred is helping to put the flags away. She has 12 flags in a bundle and 3 more in her hand. How many flags does she have altogether?

2. Glen had 20 flags and picked up 9 more. How many did he have then?

3. Ann had 13 flags, and Jack gave her 6 more. How many did she have then?

4. Harry put 22 flags in a box, and Mary put 7 flags in the same box. How many flags did Harry and Mary together put in the box?

5. Say or write the sums.

16	13	12	14	15	18	16	14
3	5	6	3	3	1	2	3

Adding by Endings

Study the additions.

12	22	32	16	26	36
5	5	5	3	3	3
17	27	37	19	29	39

Say the missing numbers.

1. When 5 is added to a number ending in 2, the sum ends in ? .

2. When 3 is added to a number ending in 6, the sum ends in ? .

Say or write the sums.

3.	16	18	25	10	12	31	43	54
	2	1	3	1	4	1	1	3
4.	33	37	12	51	37	82	61	24
	6	2	2	2	1	3	6	5
5.	41	13	52	44	63	21	35	16
	5	4	7	2	5	5	4	1
6.	35	40	23	43	11	40	44	32
	3	2	2	3	3	7	5	6
7.	12	32	24	50	31	23	15	54
	4	5	4	2	8	6	2	3

New Addition Facts

In adding down we see that the sum of 3 and 9 is 12, an addition fact that you have already learned. The sum of 12 and 5 is 17, a new addition fact. Knowing the sum of 2 and 5 will help you remember the sum of 12 and 5.

Add		Check	
3	Think	3	17
9	12	9	14
5	17	5	Think
17		17	

In checking, we find the sum of 5 and 9 is 14, an addition fact you already know. The sum of 14 and 3 is 17, a new addition fact. Knowing the sum of 4 and 3 will help you remember the sum of 14 and 3.

Say or write the sums.

1.

17	16	15	12	14	13	18	14
2	1	4	5	2	6	1	3

2.

9	7	8	6	8	9	9	9
8	9	7	6	6	4	9	5
2	1	4	5	2	6	1	3

3.

10	11	13	15	17	14	12	17
7	4	3	4	2	4	7	2

4.

6	7	4	6	9	5	7	8
4	4	9	9	8	9	5	9
7	4	3	4	2	4	7	2

Adding by Endings

Study the additions.

7	17	27	6	16	26
5	5	5	8	8	8
12	22	32	14	24	34

Say the missing numbers in 1 and 2 below.

1. When 5 is added to a number ending in 7, the sum ends in $*$. The figure in tens place is $*$ greater in the sum than in the number.

2. When 8 is added to a number ending in 6, the sum ends in $*$. The figure in tens place is $*$ greater in the sum than in the number.

3. What will the ending be if you add 9 to a number ending in 7? What of the tens figures in the sum and in the number?

4. Say and write the sums.

5	15	25	35	45	55	65	75
9	9	9	9	9	9	9	9

5. What will the ending be if you add 7 to a number ending in 9? What of the tens figures?

6. Say and write the sums.

9	19	29	39	49	59	69	79
7	7	7	7	7	7	7	7

7. What will the ending be if you add 9 to a number ending in 1? What of the tens figures?

More Adding by Endings

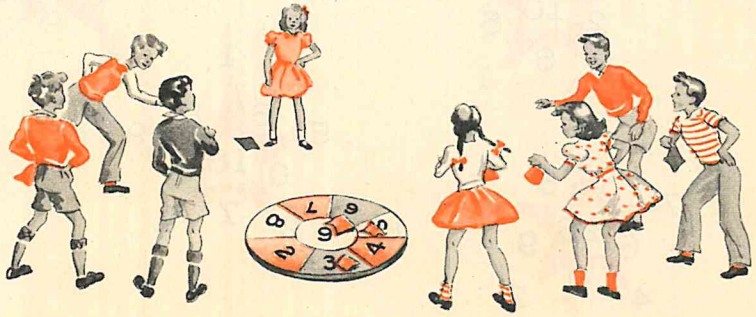
For each addition below, give the rule for endings and for the tens figures. Write the sums.

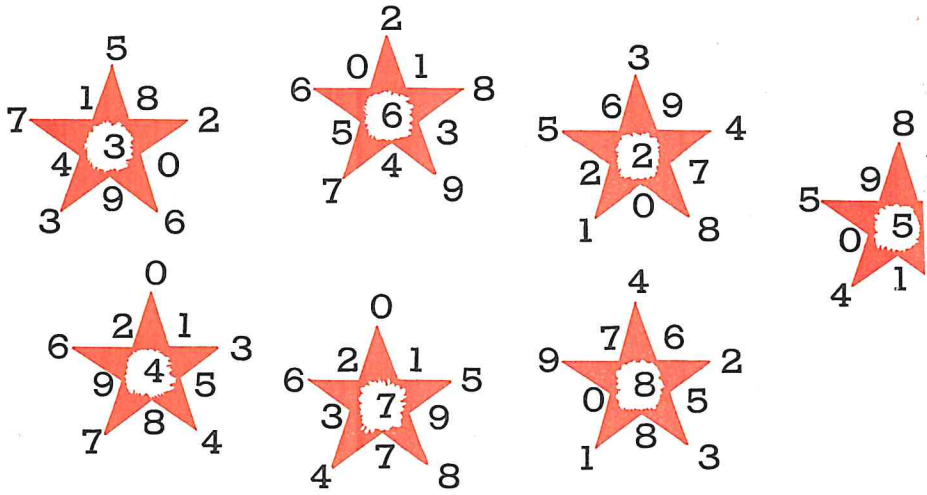
1.	26	19	27	22	34	15	38	47
	7	5	8	9	8	8	3	5
2.	18	25	28	17	15	22	34	55
	6	6	4	9	5	8	9	8
3.	27	23	32	19	35	28	16	57
	8	8	9	4	7	5	6	9

Playing Bean Bag

Playing bean bag is fun, and it gives good practice in addition. Each child has three throws. His score is the sum of the numbers on which the bags fall. These are the scores some children made.

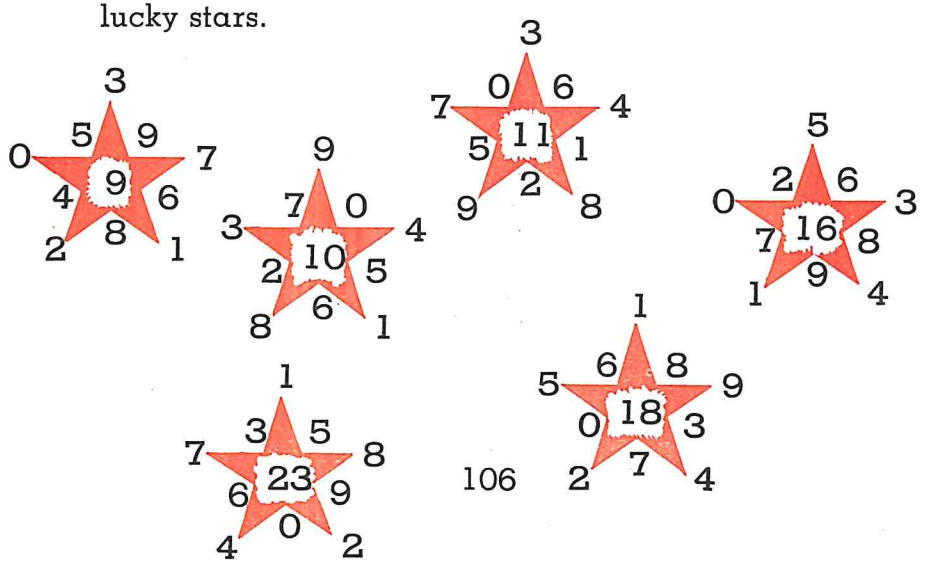
Joan	Jack	Mary	Ann	Harry	Ruth	Jane	Bob
7	4	2	7	9	7	5	6
9	9	8	8	3	4	9	7
2	4	8	2	6	6	5	5





Can You Make These Your Lucky Stars?

Different pupils will draw the different stars on the blackboard and number them exactly as they are in the book. The game is to add each number outside a star, in turn, to the number inside the star. Saying all these sums right will help you with your adding later on, and these will be your lucky stars.



Adding More Numbers

Ellen threw four bean bags. To find her score, she had to add 8, 4, 7, and 9. When numbers are written one below the other as at the right, they are written in a column.

Add		Check	
8	Think	8	28
4	12	4	20
7	19	7	16
9	28	9	Think
28			

In adding, Ellen used the addition facts $8+4=12$, $12+7=19$, $19+9=28$. Tell what addition facts she would use to check.

Say or write the sums.

1.

16	15	14	11	17	18	13	12
7	8	3	6	9	8	5	6

2.

12	14	11	13	15	11	16	14
7	3	9	6	5	6	9	5

3.

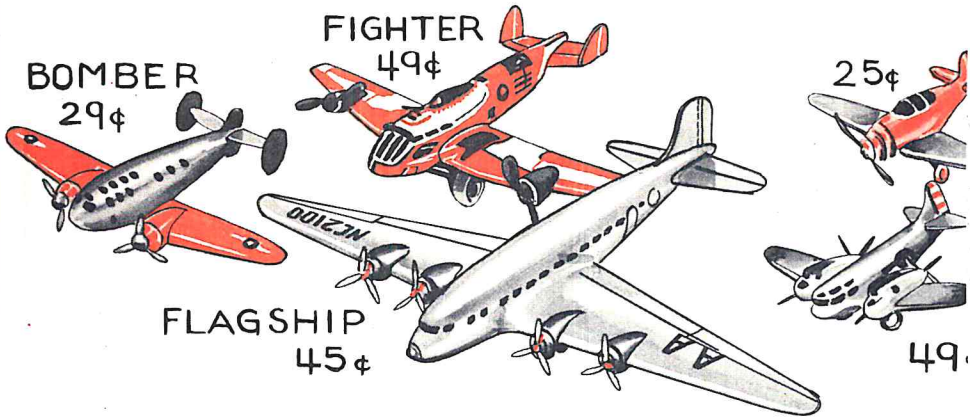
8	6	8	6	5	6	9	5
8	8	9	7	7	7	2	8
7	3	9	5	8	3	7	6

4.

10	13	17	18	16	22	18	15
6	1	8	5	4	8	9	8

5.

3	7	5	8	2	9	1	5
0	6	8	4	6	7	3	9
7	1	4	6	8	6	4	8
6	0	8	5	4	8	9	1



Buying Airplanes

1. Jerry paid 45¢ for a flagship and 29¢ for a bomber. How much did he pay for both?

45¢ = 4 dimes 5 cents
29¢ = 2 dimes 9 cents
6 dimes 14 cents = 7 dimes 4 cents

The answer is 74¢.

You can find the answer a quicker way.

45¢
29¢
74¢

To add ones column, think 5 and 9 are 14. Write **4** under 9 and carry the 1 in your mind. You may write the 1 at the top of tens column if you think you might forget to carry it in your mind.

To add tens column, think 1 and 4 are 5 and 2 are 7. Write 7 under 2. The sum is **74¢.**

2. Write the sums.

38	46	53	29	16	35	67	48
16	25	39	28	47	27	17	32

Remember the Numbers You Carry in Your Mind

1. Jack had 45 lead soldiers. Tom had 28. If they put them all together, how many will there be?

Think 5 and 8 are 13. Write **3** under 8 and carry 1. Think 1 and 4 are 5 and 2 are 7. Write 7 under 2.

The answer is **73**.

$$\begin{array}{r} 45 \\ 28 \\ \hline 73 \end{array}$$

2. Eddie had 64 lead soldiers, and Harry had 78. How many soldiers did both have?

Think 4 and 8 are 12. Write **2** under 8 and carry 1. Think 1 and 6 are 7 and 7 are 14. Write **14** as shown.

The answer is **142**.

$$\begin{array}{r} 64 \\ 78 \\ \hline 142 \end{array}$$

Write the sums.

3.

24	46	17	35	68	13	65	48
18	26	69	38	19	17	27	33

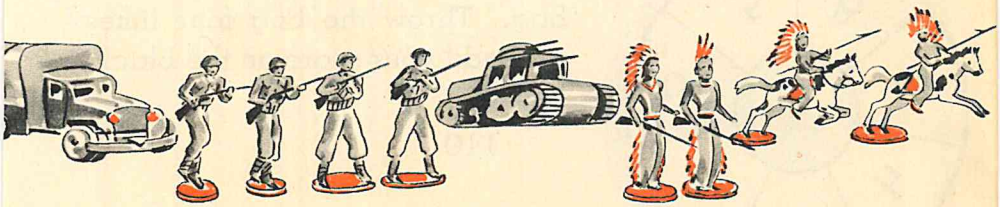
4.

64	87	38	99	75	85	39	76
87	66	94	67	86	27	49	55

5. Joan had 86 paper dolls, and Mary had 49. How many paper dolls did the two girls have?

6. Tom paid 18¢ for a toy tank and 37¢ for a toy truck. How much did they both cost?

7. Ted had 58 lead Indians and 73 lead cowboys. How many lead men did he have all together?

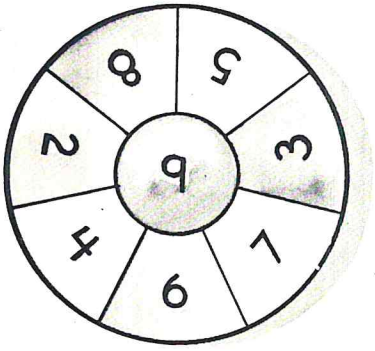


Adding Columns

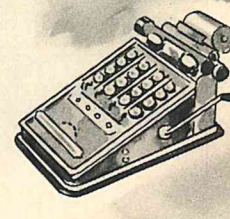
These are scores from playing bean bag. Who is the winner in each row? Find all the sums.

	Ann	Lou	Nan	May	Ora	Bob	Tom	Ted	Jim	Ned
1.	8	4	9	6	2	7	6	5	8	6
	3	6	8	4	9	4	3	7	1	4
	7	6	9	8	5	7	6	4	7	6
2.	7	5	9	5	8	7	6	9	5	3
	9	7	5	3	8	4	6	2	7	2
	5	3	7	2	8	9	4	7	8	9
3.	8	3	4	6	8	9	7	5	8	3
	4	7	8	4	9	7	8	3	6	4
	7	6	8	4	9	6	5	2	8	9
	9	8	5	7	6	5	9	4	7	3
4.	8	5	9	7	4	8	3	6	9	4
	4	6	7	9	5	7	2	7	5	9
	4	6	8	6	5	3	8	6	5	8
	9	5	4	3	8	9	5	6	6	3
5.	7	3	9	7	8	5	2	6	7	7
	5	7	6	4	8	2	9	6	5	4
	8	4	8	9	3	5	7	8	8	6
	6	8	5	7	9	3	6	2	4	8

Some day when you cannot play out-of-doors at recess, draw this circle on the floor. Number it and play bean bag. Throw the bag four times and add your score on the blackboard.



Adding Machines



Bobby got a toy adding machine for his birthday. He said, "Now I can add numbers and get the right answers all the time." The trouble was that he could not have the adding machine with him when he needed it.

Joan said, "I do not have a toy adding machine, but I can add and get the right answers. I know how to check sums."

Joan added down and checked by adding up. She found the same sum adding up that she had found adding down. This makes the answer check.

Add		Check	
7	Think	7	25
6	13	6	18
8	21	8	12
4	25	4	Think
25			

When Joan checks a sum, she is sure that it is right.

1. Add 34, 52, 33, and 65. Check.

Add the ones column down. The sum is 14. Write **4** under 5 and carry 1 to the tens column. Add the tens column down. The sum is 18. Write **18** as shown.

```
 34
 52
 33
 65
----
184
```

2. Write the sums. Check.

28	35	56	47	82	48	57	64
36	72	47	63	19	45	32	87
91	32	45	76	16	34	87	17
33	87	76	54	73	82	49	25

Checking Answers

Miss Martin gave each child three numbers to add. Check each answer and tell whether it is right.

Henry	Floyd	Glen	Oscar	Tommy	Paul
89	74	84	97	76	49
83	77	86	92	75	76
91	80	88	95	70	94
263	231	258	285	221	219

Lucy	Mary	Adele	Cora	Grace	Peggy
78	91	87	75	90	47
70	98	76	81	87	91
72	90	84	76	89	77
220	279	247	232	266	205

Rose	Sam	Daisy	Harry	Sarah	Lily
97	88	91	84	89	93
78	82	84	93	87	49
84	75	77	82	92	75
259	245	252	277	268	217

1. Robert added 84, 92, 78, and 97. He said the sum is 351. Is this right?

2. Dick added 87, 76, 73, and 83. What is the correct sum?

Remember What You Carry

In adding numbers, you sometimes have to carry **1**, sometimes you have to carry **2**, sometimes you have to carry **3**. Be careful to carry the right number.

1. Jack went on two trips with his father. The first trip was 49 miles there and 49 miles back. The second trip was 28 miles there and 28 miles back. How many miles did Jack go in all?

Write the four numbers in a column.

Add the ones column. Think 9 and 9 are 18, 18 and 8 are 26, 26 and 8 are 34. Write **4** under 8 and carry 3.

Add the tens column. Think 3 and 4 are 7, 7 and 4 are 11, 11 and 2 are 13, 13 and 2 are 15. Write **15** as shown.

```
 49
 49
 28
 28
----
154
```

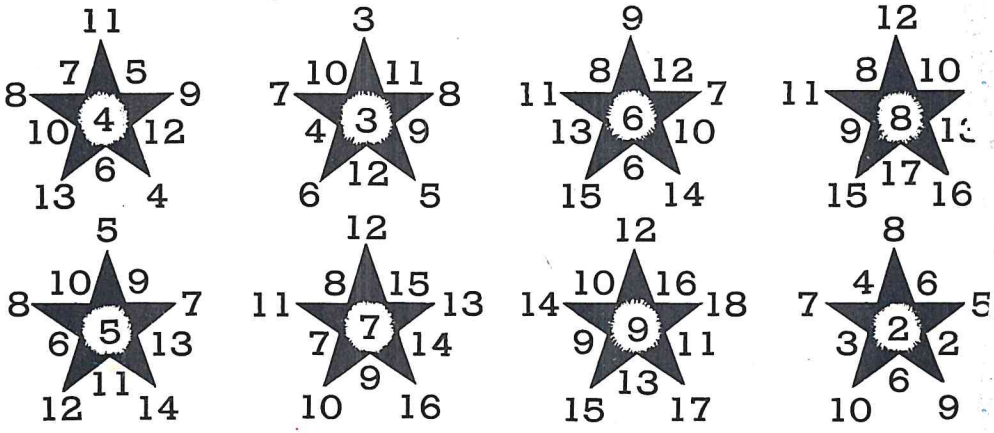
The answer is **154** miles.

2. Mary went on two trips with her mother. The first trip was 18 miles there and 18 miles back. The second trip was 27 miles there and 27 miles back. How many miles did Mary go in all?

3. The whole family went on two trips. The first trip was 26 miles there and 27 miles back. The second trip was 38 miles there and 37 miles back. How many miles did they go in all?

Will These Lucky Stars Shine for You?

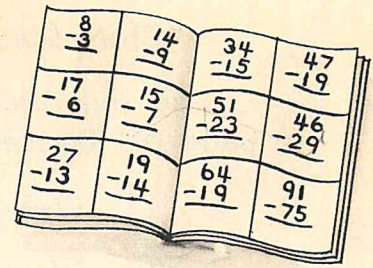
Different pupils will draw the different stars on the blackboard and number them exactly as they are in the book. The game is to subtract the number inside a star from each number outside the star. If you can say all these remainders right, these lucky stars will shine for you.



Write the remainders.

1.	786	943	659	302	540	682
	431	522	300	202	220	442
2.	975	655	768	695	468	873
	725	303	244	172	311	543
3.	881	548	917	419	307	906
	421	323	604	217	104	606

Dora Learns to Check Subtraction



Dora's father gave her a book of subtractions to do. When she had finished a page and all the answers were right, he wrote a big "100" on the paper. Dora thought this was great fun. But sometimes an answer was wrong. This made Dora sad, for she wanted a big 100 on every page.

Then her father showed her how she could be sure that all her answers were right. Dora writes the remainders in her workbook like this:

78	39	45	97	65	48	54	86
35	14	21	64	23	16	30	45
43	25	24	33	42	32	24	31

Then she covers the top row of numbers, and adds the bottom row and the remainders, like this:

35	14	21	64	23	16	30	45
43	25	24	33	42	32	24	31
78	39	45	97	65	48	54	76

Every subtraction, except the last one, checks. Can you explain why this is true? Dora did this one a second time and found her mistake. When she checks all her work like this, she will get a big 100 on every page.

The Reds and the Blues Race Again

Read the directions for the addition races on page 18. Do these races in exactly the same way.

Race 1. Write the sums on folded paper.

1.	36	67	39	54	87	39	58	73
	21	43	15	33	57	22	43	50
2.	78	37	71	95	49	28	37	93
	24	25	31	64	23	14	10	72
3.	69	86	97	89	92	53	52	96
	34	30	63	18	51	10	42	21

Race 2. Write the remainders on folded paper.

1.	784	937	459	360	475	975
	232	125	336	120	114	641
2.	941	765	487	398	674	759
	321	454	356	297	434	526

Race 3. Write the sums on folded paper.

1.	84	74	81	39	27	46	57	98
	53	54	80	17	14	25	30	17
2.	88	84	64	43	95	65	76	91
	74	64	20	12	82	45	16	31

Race 4. Write the remainders on folded paper.

1.	119	167	138	153	129	142
	24	73	41	60	65	81
2.	115	106	124	118	157	146
	30	41	54	48	74	95
3.	127	115	168	177	134	143
	30	73	97	84	51	52

Race 5.

1. Keep 17 in mind and add it to each number in row A. Hold your paper under row A and write the sums on the paper.

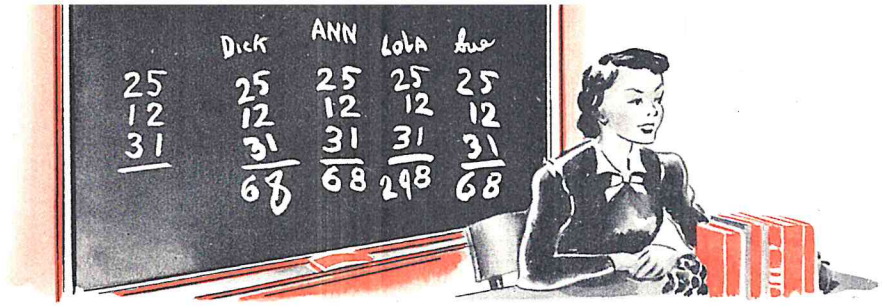
A: 5 7 9 4 8 6 1 3 2

2. Keep 26 in mind and add it to each number in row A, as you did in **1**.

3. Keep 35 in mind and add it to each number in row A, as you did in **1**.

Race 6. Write the sums on folded paper.

1.	98	56	68	87	68	87	79	77
	39	28	46	57	68	69	28	45
	86	37	63	53	56	96	85	94
2.	87	51	32	25	50	28	37	91
	45	36	98	29	26	13	24	63
	18	46	77	27	67	35	15	43



It Pays to Write Your Numbers Neatly

Miss Martin wrote three numbers on the blackboard to be added. She asked the children to copy these numbers and to find the sum.

Which child did the neatest and the best work? Did she get the right answer?

Which child did the poorest work? Did she get the right answer? Why do you think she made mistakes?

Copy neatly and add.

1.	46	37	54	76	39	342	736
	32	20	43	12	50	147	42
2.	25	32	16	70	6	322	506
	12	54	2	27	40	46	70
	31	11	61	2	33	21	220

Copy neatly and subtract.

3.	67	96	43	38	57	817	564
	32	53	32	16	20	612	242
4.	93	65	76	51	47	543	159
	41	30	55	21	15	341	75

Bessie's Flower Garden

1. Bessie counted 7 flowers on one stalk, 5 on another, 6 on another, and 9 on another. How many flowers were there on the four stalks?

2. One day she counted 17 red roses, 9 pink roses, and 5 white ones. How many roses was this?

3. Many flowers were in bloom. She counted 23 yellow ones, 31 red ones, 12 white ones, and 19 others. How many were there in all?

4. Bessie had 39 pansy plants. She gave 24 of them to friends. How many did she have left?

5. She needs 28 roses for a party. She has already picked 11 nice ones. How many more does she need?

6. Last year she picked 110 roses, and this year she has picked 324. How many more has she picked this year than last year?

7. How many roses did she pick last year and this year together?

Copy these numbers neatly and find the sums.

8. 3, 9, 7
9. 9, 4, 6
10. 8, 8, 4
11. 3, 7, 8
12. 5, 9, 4
13. 28, 16, 43
14. 73, 51, 79
15. 4, 9, 7, 6
16. 9, 2, 5, 7
17. 34, 57, 86, 94

1. Bessie picked a big bunch of violets for her mother. There were 43 light blue ones, 56 dark blue ones, 37 yellow ones, and 28 white ones. How many were there in all?

2. A few weeks later, Bessie picked an armful of daisies. She put 36 daisies in one vase, 32 in another vase, 45 in another vase, and 54 in a fourth vase. How many daisies did she put in the four vases?

3. After filling the four vases, Bessie found that she had 15 daisies left. How many daisies did she pick?

4. An old stone wall was covered with wild roses. One day Bessie counted 342 blooms, and another day she counted 567 blooms. How many more were there the second day than the first day?

5. Bessie and a little friend picked white clover blooms and made them into a chain. Bessie used 412 clover blooms to make her part of the chain, and her little friend used 366 clover blooms. How many clover blooms did they both use?

6. Some children helped her pick clover leaves for her rabbit. Tom picked 96 leaves, Mary picked 57, John picked 66, and Bessie picked 89. How many leaves did she have in all?

7. Bessie wanted some clover blooms for the rabbit, too. Tom picked 196 and Mary picked 112. How many did they pick in all?

Busy Beavers at Work Again

1. Add 9 to each of these numbers. Write only the sums.

4 1 7 8 6 9 2 0 5 3

2. Add 18 to each of these numbers. Write only the sums.

7 4 2 6 1 9 3 8 5 0

Write the sums.

3.	48	29	35	48	16	23	46	29
	17	43	19	28	39	19	38	47
4.	39	63	78	27	38	29	48	39
	35	18	16	54	29	16	34	59
5.	36	29	57	32	68	15	47	57
	17	48	25	39	25	16	36	28
6.	26	37	46	69	74	37	25	49
	45	59	46	24	18	27	38	47

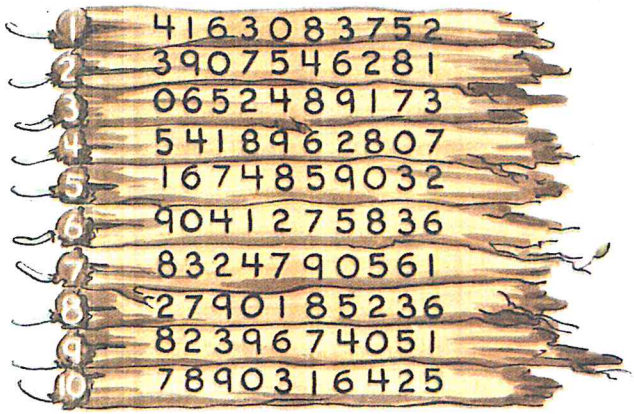
If you made more than five mistakes, mend the weak places in your wall. Work on page 122.

All other beaver builders will work on page 123.

Help for Mending the Wall

A tunnel is a hole dug under the ground. Beavers dig tunnels that lead to their warm little homes.

Here are ten tunnels. Can you dig through them quickly? To dig through a tunnel, you add the number on the beaver to each number on the tunnel.



For extra practice for busy beavers, go around the stars again on pages 106 and 114, and do the races again on pages 116 and 117.

Now try page 121 again.

You may now work on page 124.

A Page for Beaver Builders

Go over this page very carefully. Be sure you can get all the answers right.

Then ask two or three of the beavers who are working page 122 to go to the blackboard with you. Watch them while they work this page.

1. The sum of 16 and 3 ends in 9. Why? The first figure of the sum is 1. Why? $16+3=19$.

2. The sum of 25 and 2 ends in 7. Why? The first figure of the sum is 2. Why? $25+2=27$

Say or write these sums quickly.

3. $16+2$ $11+6$ $17+2$ $13+4$ $14+5$

4. $10+8$ $15+3$ $12+3$ $13+6$ $15+2$

Write the sums.

5.

24	46	57	35	66	54	38	54
38	29	34	48	27	39	37	49

6. The sum of 17 and 8 ends in 5. Why? The first figure of the sum is 2. Why? $17+8=25$.

7. The sum of 28 and 6 ends in 4. Why? The first figure of the sum is 3. Why? $28+6=34$.

Copy neatly in straight columns and add.

8. 37, 49, 25, 52 **9.** 74, 37, 48, 59

Now for a Swim in the Pond!

Write the numbers 1 to 30 on your paper. After the numbers you have written, write the sums below.

1.	16 and 3	**11.**	16 and 5	**21.**	16 and 7
2.	13 and 5	**12.**	13 and 9	**22.**	13 and 8
3.	12 and 6	**13.**	12 and 3	**23.**	12 and 9
4.	14 and 2	**14.**	14 and 7	**24.**	14 and 5
5.	17 and 4	**15.**	17 and 6	**25.**	17 and 8
6.	15 and 5	**16.**	15 and 9	**26.**	15 and 3
7.	18 and 5	**17.**	18 and 8	**27.**	18 and 1
8.	11 and 7	**18.**	11 and 4	**28.**	11 and 2
9.	19 and 1	**19.**	19 and 3	**29.**	19 and 8
10.	23 and 9	**20.**	36 and 8	**30.**	28 and 5

Write the sums.

31.	39	47	32	34	42	53	64	43
	54	39	66	38	29	37	28	54
32.	43	95	38	43	27	39	46	78
	24	56	65	54	42	81	48	42
	91	56	42	71	19	17	36	78

Copy and add.

33. 2, 8, 3, 9

34. 8, 0, 9, 7

35. 84, 62, 30, 42

36. 43, 44, 53, 29

Adding on the Farm

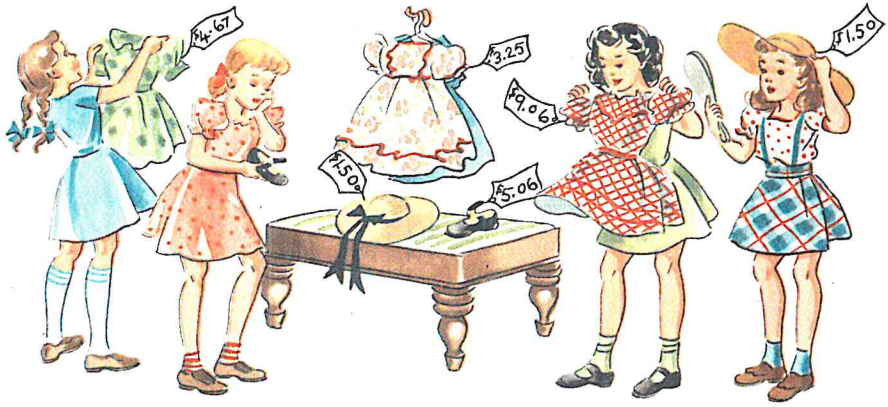
Mr. Mack had a cow that weighed 748 pounds and a calf that weighed 235 pounds. How many pounds did they both weigh?

Write 235 under 748. In ones column, think 8 and 5 are 13. Write **3** under 5 and carry 1. In tens column, 1 and 4 are 5, and 3 are 8. Write **8** under 3. In hundreds column, think 7 and 2 are 9. Write **9** under 2. The answer is **983**.

$$\begin{array}{r} 748 \\ 235 \\ \hline 983 \end{array}$$

1. Mr. Smith had three calves in his truck. One weighed 218 pounds, another 256 pounds, and another 309 pounds. How many pounds did they all weigh?

2. Mr. Brown had 245 pounds of flour, 112 pounds of corn, and 128 pounds of clover seed in his truck. How many pounds was this?



Playing Dry Goods Store

Alice and her friends are playing "dry goods store." Alice has put prices on the dresses, hats, and shoes she has placed in the room for sale. Before the children could start playing store, they had to learn to read and write money numbers.

You write three dollars and twenty-five cents in figures as $3.25. There is a dollar sign in front of the number, and a dot between dollars and cents. The dot is called the cents point, and is read as "and."

You write one dollar as $1 or as $1.00.

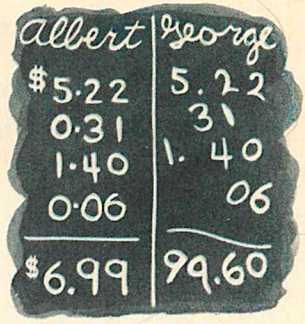
You write four dollars and sixty-seven cents as $4.67.

You write eighty-five cents as 85¢ or $0.85 or $.85.

You write six cents as 6¢ or $0.06 or $.06.

Write these in figures:	Read these:
1. Seven dollars	**6.** $7.89
2. Three dollars and forty cents	**7.** $5.06
3. Nine dollars and six cents	**8.** $1.50
4. Eighty-two cents	**9.** $0.91
5. Two dollars and ten cents	**10.** $0.05

Adding and Subtracting Dollars and Cents



In copying dollars and cents to be added, write the numbers so that all the cents points are exactly under each other. The cents point of the sum will be exactly under the cents points of the numbers added. Write a dollar sign in front of the top number added and in front of the sum.

What do you think of Albert's work in copying and adding? What do you think of George's work in copying and adding?

Here are some of the bills for things the children bought when they played dry goods store with Alice. Can you add and check these bills?

1.	$3.45	$2.27	$6.73	$5.43	$0.47
	1.27	3.28	0.15	2.16	1.28
	4.02	1.14	1.08	0.05	0.24
2.	$1.62	$2.07	$3.14	$1.35	$1.57
	0.34	1.20	0.29	0.25	5.30
	4.00	0.68	0.54	5.00	0.05

3. Subtract and check. Write the dollar sign in front of each remainder and the cents point in the remainder exactly under the cents point of the numbers subtracted.

$7.68	$4.35	$8.19	$6.75	$3.15
5.25	1.35	3.10	5.20	1.00

Addition Practice

Try to be one of the first ten to finish this page and get all the answers right.

Add and check.

1.	2	3	8	7	9	4	9	3	5	6
	8	5	1	2	7	6	2	4	0	5
	4	6	3	8	4	5	8	0	8	0
	7	4	5	4	9	7	3	2	7	0

2.	43	92	84	52	48	93	57	72
	38	64	78	89	64	75	38	34
	46	59	56	76	87	36	73	89

3.	34	85	62	95	84	72	67	89
	23	80	54	43	81	12	31	13
	50	35	92	20	71	32	42	40
	28	57	58	18	57	19	26	25

In some of the additions below, you may have to carry a **2** or a **3**. Be careful to carry the right number.

4.	38	27	56	49	38	56	87	57
	45	38	37	32	69	47	36	59
	37	49	58	19	44	99	18	28

We Skip Empty Places in Adding

The numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0 are called **figures.** There is an empty place in a column when the numbers to be added do not all have the same number of figures in them. In adding, you skip an empty place and go to the next figure.

1. Copy and add: 346, 35, 217.

Think 11, 18. Write **8** under 7 and carry 1.

Think 5, 8, 9. Write **9** under 1.

Think 5. Write **5** under 2.

346
35
217
598

2. Copy and add: 23, 341, 8, 419.

Think 4, 12, 21. Write **1** under 9 and carry 2.

Think 4, 8, 9. Write **9** under 1.

Think 7, and write **7** under 4.

23
341
8
419
791

When numbers are written for adding, the right-hand side is straight up and down.

Copy and add, being careful to keep the right-hand side straight up and down.

3. 376, 9, 17

4. 37, 405, 56

5. 8, 527, 59

6. 608, 71, 6

7. 544, 28, 6, 305

8. 38, 124, 9, 26

9. 4, 327, 48, 419

10. 305, 26, 41, 7

11. Harry found 9 pounds of chicken feed in one sack, 56 pounds in another sack, and 128 pounds in a third sack. How many pounds was this?

Carrying from Tens Column to Hundreds Column

Study the additions below. Copy the numbers to be added on the blackboard. Add aloud so that all may hear how you carry. Tell exactly how the first three additions differ from the second three additions.

348	456	325	483	465	253
127	38	218	271	83	182
		439			394

In the first three additions, above, you carry from ones column to tens column; in the second three additions, you carry from tens column to hundreds column.

Add and check.

1.	387	296	192	739	547	636
	442	571	276	106	382	137
2.	543	719	546	636	657	374
	295	167	372	347	206	491
3.	483	107	351	532	719	349
	291	458	118	185	137	417
	102	329	490	261	114	219
4.	638	504	618	192	415	342
	171	192	137	384	328	476
	100	282	238	380	150	181

An Addition Ladder

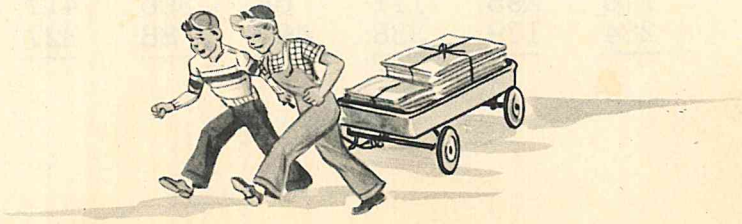
Try to climb down the left side and up the right side without a mistake. It is dangerous to make a mistake when climbing on a ladder. Write the sums on folded paper.

1.	647	509	448	**6.**	481	72	765
	138	268	225		63	194	80
					152	361	72
2.	359	47	725				
	28	426	9	**5.**	363	254	293
					282	382	160
					193	191	383
3.	329	447	316				
	418	315	437				
	237	219	209	**4.**	394	853	468
					81	72	50

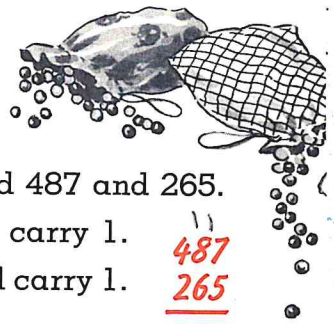
Addition Problems

1. Harry and Ellwood are collecting waste paper in their wagon. One time they had 137 pounds, another time they had 81 pounds, and another time they had 160 pounds. How many pounds was this?

2. Albert and James collected 64 pounds of waste paper one day, 108 pounds the next day, and 126 pounds the next day. How many pounds was this?



Sometimes We Carry Twice in Addition



1. Bobby had 487 marbles. Frank had 265 marbles. If they put them all together, how many will there be?

To find the answer, you must add 487 and 265.

Think 12. Write **2** under 5 and carry 1.

Think 9, 15. Write **5** under 6 and carry 1.

Think 5, 7. Write **7** under 2.

The answer is **752**.

$$\begin{array}{r} {\scriptstyle 1\,1} \\ 487 \\ +\ 265 \\ \hline 752 \end{array}$$

2. Add 368, 239, and 327.

Think 17, 24. Write **4** under 7 and carry 2.

Think 8, 11, 13. Write **3** under 2 and carry 1.

Think 4, 6, 9. Write **9** under 3.

The answer is **934**.

$$\begin{array}{r} {\scriptstyle 1\,2} \\ 368 \\ 239 \\ +\ 327 \\ \hline 934 \end{array}$$

Add. Check by adding in the opposite direction.

3.

367	289	476	179	348	296
258	579	388	678	175	365

4.

476	385	547	178	559	637
84	79	85	98	87	94

5.

489	507	448	179	98	76
176	295	171	68	396	417
284	179	338	499	88	327

Down and Up the Stairs

Try to go down the left side and up the right side without a mistake. Write the sums.

1. 347 + 236 = ____ 859 + 128 = ____

2. 638 + 36 = ____ 565 + 27 = ____

3. 416 + 293 = ____ 361 + 364 = ____

4. 572 + 85 = ____ 483 + 63 = ____

5. 347 + 214 + 115 = ____ 128 + 225 + 435 = ____

6. 452 + 17 + 206 = ____ 138 + 26 + 5 = ____

7. 285 + 231 + 460 = ____ 153 + 371 + 454 = ____

8. 658 + 299 = ____ 437 + 386 = ____

9. 367 + 45 = ____ 582 + 19 = ____

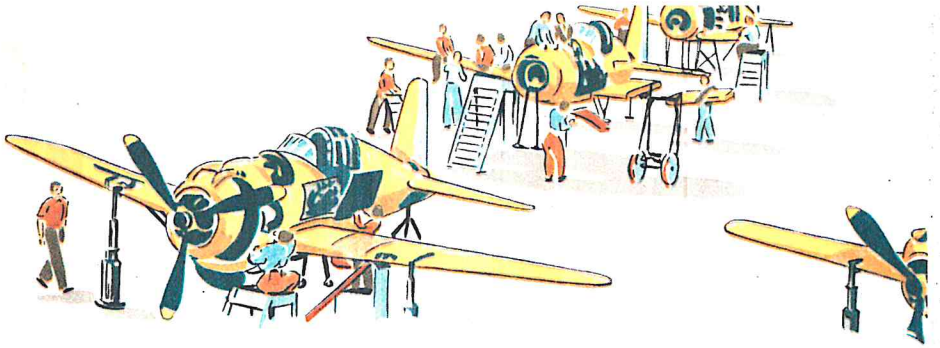
10. 548 + 167 = ____ 659 + 246 = ____

11. 257 + 144 + 362 = ____ 362 + 269 + 254 = ____

12. 354 + 74 + 137 = ____ 261 + 48 + 55 = ____

13. 376 + 268 + 288 = ____ 379 + 197 + 268 = ____

14. 369 + 94 + 179 = ____ 148 + 85 + 98 = ____



Airplane Workers

1. Mr. Smith and Mr. Brown are helping to make giant planes. As they work, they measure many things by the foot. Place your hands one foot apart on your desk.

1 ft. is a short way to write "one foot."

2. Use your foot ruler and draw a line exactly 2 feet (2 ft.) long on the blackboard. Draw lines that measure 4 ft., 5 ft., 7 ft., 10 ft.

3. What is meant by the "fuel line" on an airplane?

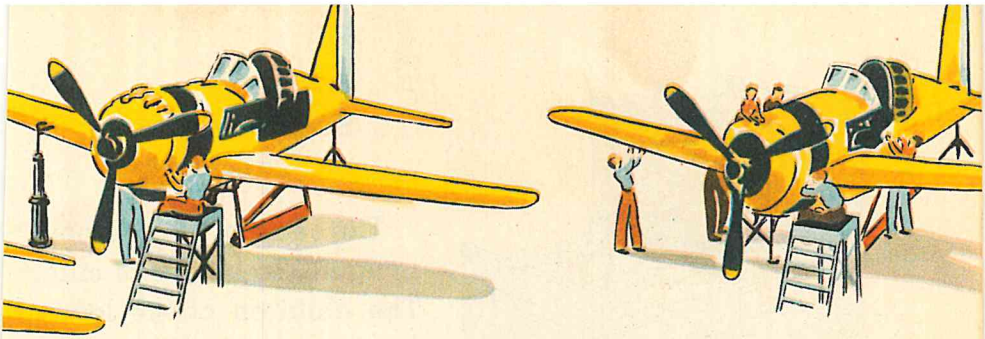
4. Bob said the fuel line looks like a pipe, or tube. Was he right?

5. Mr. Smith was making a fuel line on a plane. He put two pieces of tubing together. One piece measured 12 ft. The other measured 9 ft. How long was the tube he made?

6. The next day he put together 4 ft., 11 ft., and 8 ft. of tubing. How long was this tube?

7. Find how long each of these tubes is:

3 ft.	5 ft.	14 ft.	6 ft.	12 ft.	2 ft.
10 ft.	3 ft.	5 ft.	3 ft.	3 ft.	16 ft.
11 ft.	12 ft.	2 ft.	10 ft.	12 ft.	5 ft.



8. Mr. Brown is fastening the pieces of wing together with small metal pieces called rivets. He put in 124 rivets, 46 rivets, and 135 rivets. How many rivets did he put in that wing?

9. Find how many rivets Mr. Brown put in each of these wings:

6	78	254	56	42	67	187
233	9	65	7	214	8	64
76	122	8	321	78	243	84
7	29	7	34	132	96	79

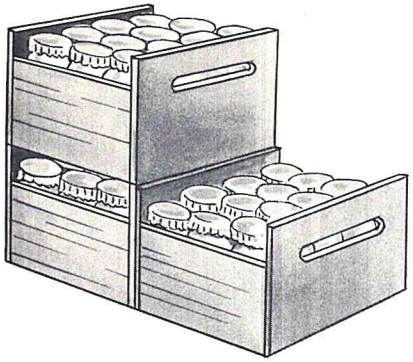
10. Mr. Smith earned $8.75 Monday, and $6.75 Tuesday. How much did he earn in all?

11. Mr. Brown earned $7.45 Monday, $6.00 Tuesday, and $6.55 Wednesday. How much did he earn in the three days?

12. How much did each of these workers earn?

Mr. Jones	Mr. White	Mr. Hall	Mr. Hill	Mr. West
$7.65	$6.95	$8.55	$7.75	$4.95
7.45	7.65	6.75	8.45	6.85
6.55	6.85	7.55	7.95	5.75

13. Mr. Smith worked 8 days on one plane, 15 days on a second plane, and 9 days on another. How many days did he work in all?



Subtracting and Checking

The school lunchroom bought 986 bottles of milk. The children of the lower floor drank 354 bottles. How many bottles were left?

To find the answer, you subtract 354 from 986. The remainder is 632.

To be sure your answer is right, you may add 354 and 632. Their sum should be 986. This step is called checking your subtraction.

Study the work below.

Subtract		Check	
986	Minuend	354	Subtrahend
354	Subtrahend	632	Remainder
632	Remainder	986	Minuend

Subtract and check.

1.	347	729	984	427	738	867
	216	304	653	225	524	143
2.	219	380	274	973	806	759
	117	230	154	353	204	345

3. The milkman brought 899 bottles of milk. There was white milk in some bottles and chocolate milk in other bottles. If there were 365 bottles of chocolate milk, how many bottles of white milk were there?

The 100 Subtraction Facts

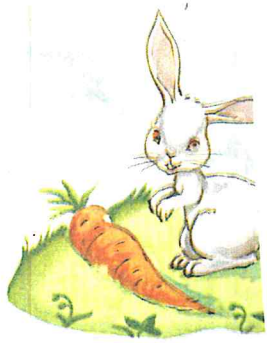
Subtract the number in the circle at the bottom of a column from each number in the column.

6	4	6	9	5	9	10	12	18	3
4	2	7	6	7	7	8	8	11	7
8	6	11	4	12	10	16	11	13	6
5	8	9	7	14	8	9	9	17	9
1	9	10	8	8	6	11	14	10	0
3	10	8	10	9	11	7	16	14	4
7	5	5	12	6	15	12	15	16	1
9	11	12	5	11	14	15	17	9	8
2	3	3	11	10	13	13	10	12	5
10	5	4	13	13	12	14	13	15	2
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(0)

Write the remainders on folded paper.

1.	18	15	16	15	14	15	12	13
	9	8	9	7	9	6	9	4
2.	10	13	11	13	13	11	17	11
	8	5	9	8	7	5	9	4
3.	13	10	12	13	14	11	14	10
	6	7	4	9	8	6	5	2
4.	17	12	10	11	10	9	8	0
	8	5	9	3	1	0	8	0

Subtraction with Borrowing



Andrew had 85¢. He spent 39¢ of it for a pretty white rabbit. How much did he have left?

You cannot take 9 from 5. You can think of one of the dimes as 10 cents, and put it with 5 cents to make 15 cents. You can take 9 from 15.

85¢
−39¢

8 dimes 5 cents = 7 dimes 15 cents = 85¢
3 dimes 9 cents = 3 dimes 9 cents = 39¢
4 dimes 6 cents = 46¢

Here is a shorter way to subtract 39 from 85.

Since you cannot take 9 from 5, borrow 1 from 8 to make the 5 a 15. This makes the 8 a 7. Think 9 from 15 is 6, and write **6** under 9. Think 3 from 7 is 4 and write **4** under 3.

85 7 15
39 3 9
4 6

Subtract.

1.	71	90	62	45	53	42	54	97
	43	38	25	26	18	27	36	48
2.	58	62	71	95	53	90	74	78
	19	24	38	47	26	53	27	46

Subtraction Practice

1. Take turns and see how quickly you can say the remainders on page 137.

Copy the numbers to be subtracted and find the remainders.

2.	77	49	89	85	86	85	97	83
	46	24	72	50	54	12	65	32
3.	73	82	96	52	73	91	83	54
	46	42	51	14	41	33	28	37
4.	76	39	45	37	46	36	56	74
	18	27	28	17	24	16	19	39
5.	72	83	65	53	58	75	94	81
	24	25	41	34	23	27	56	54
6.	36	71	55	83	91	67	49	76
	12	26	34	56	45	39	22	28

7. There are 200 school days in a year and 365 days in all in a year. How many days in a year are not school days?

8. A Boy Scout outfit costs $7.95. Harry has $5.25. How much more does he need to buy the outfit?

9. Jack has 756 stamps, and Mary has 532 stamps. How many more stamps does Jack have?

Empty Spaces in Subtraction

Mary needs to print 365 tickets for a show. If she has already printed 43, how many more must she print?

To find the answer, you must subtract 43 from 365.

Think 3 from 5, and write **2** under 3. Think 4 from 6, and write **2** under 4. There is an empty space under 3. Write **3** under the empty space.

$$\begin{array}{r} 365 \\ -\ 43 \\ \hline 322 \end{array}$$

1. Subtract.

374	773	179	340	463	572	986
− 43	− 51	− 56	− 20	− 40	− 52	− 86

Ellen counted on the calendar and found it would be 259 days until her birthday. It was 6 days later when she again wanted to know how many days until her birthday. She could find out by counting again on the calendar, or she could find out by subtracting 6 from 259.

Think 6 from 9 is 3, and write **3** under 6. There is an empty space under 5 and another empty space under 2. Write **2** and **5** as shown.

$$\begin{array}{r} 259 \\ -\ 6 \\ \hline 253 \end{array}$$

2. Subtract.

769	546	957	164	376	297	546
− 7	− 4	− 5	− 3	− 6	− 2	− 4

Empty Spaces in the Remainder

1. Subtract 342 from 392.

Think 2 from 2 is 0, and write **0** under 2.
Think 4 from 9 is 5 and write **5** under 4.
Think 3 from 3 is 0. Do not write this **0**.

$$\begin{array}{r} 392 \\ -\ 342 \\ \hline 50 \end{array}$$

2. Subtract 541 from 546.

Think 1 from 6 is 5. Write **5** under 1.
Think 4 from 4 is 0. Do not write this **0**.
Think 5 from 5 is 0. Do not write this **0**.

$$\begin{array}{r} 546 \\ -\ 541 \\ \hline 5 \end{array}$$

Subtract.

3.

384	673	436	853	786	947
324	621	410	823	756	907

4.

566	727	598	415	823	655
560	721	595	411	820	654

5.

57	78	89	63	69	71	36	95
51	72	83	60	65	70	32	94

6.

75	89	67	58	36	94	57	86
3	7	0	5	6	2	5	1

7.

357	875	432	917	658	579
325	65	232	117	630	57

The Children Make a Pioneer Village

Long ago only red men lived in this country. We call them Indians. The first white men who came were called pioneers. The pioneers made their homes of logs. Some children made a play pioneer village.

1. Harry brought 125 little straight twigs, and Joe brought 83 twigs. How many more twigs did Harry bring?

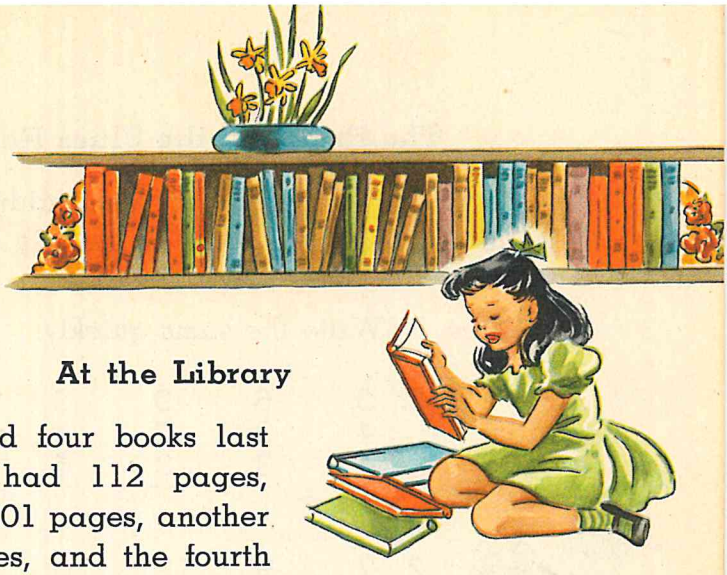
2. They used 44 twigs to make a small cabin and 76 twigs to make a big cabin. How many more twigs did it take for the big cabin?

3. The children cut out 88 trees. They used 26 for the village. How many trees were left?

4. One class made 29 paper Indians and the other class made 25 paper Indians. How many more did the first class make?

5. The children used 35 paper pioneers in their village. Of these, 27 were men. How many were women?

6. The pioneers had 65 guns in their homes and 127 guns in their blockhouse. How many more guns did they have in the blockhouse than in their homes?



At the Library

1. Lois read four books last week. One had 112 pages, another had 201 pages, another had 130 pages, and the fourth had 152 pages. How many pages were in all the books?

2. On one shelf there were 12 books with brown covers, 9 with red covers, 7 with blue covers, and 7 with covers of other colors. How many books were on the shelf?

3. One day 516 girls and 312 boys came to the library. How many more girls than boys came?

4. There is space for 56 books on one shelf. Only 32 books were there. How many were out?

5. Ruth saw 78 books on a table. The librarian said all except 12 of these were story books. How many story books were there on the table?

6. Nora saw a set of 12 books numbered from 1 to 12 with Roman numerals. Draw 12 books on a shelf and number them with Roman numerals.

7. Amy said, "It is time to go home. It is a quarter past four." Draw a clock face to show this time.

The Reds and the Blues Race Again

Read the directions for the addition races on page 18. Do these races in exactly the same way.

Race 1. Write the sums quickly.

1.	3	6	9	3	6	3
	4	9	7	4	0	9
	4	3	3	6	9	4
2.	7	9	3	0	4	7
	4	6	0	5	4	6
	0	1	8	9	6	4
3.	6	4	1	3	7	4
	1	5	3	8	5	3
	0	8	8	5	9	8
	5	6	7	9	5	3

Race 2. Write the sums quickly.

1.	37	73	32	84	30
	65	43	38	25	44
	71	24	97	81	59
2.	94	63	57	40	81
	8	13	20	9	17
	23	8	15	6	24

Race 3. Write the sums quickly.

1.	368	338	213	712	389
	321	439	568	192	470
2.	347	156	409	375	672
	159	246	401	225	128
3.	228	536	700	509	240
	67	64	9	21	14

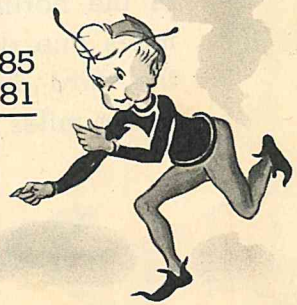
Race 4. Write the sums quickly.

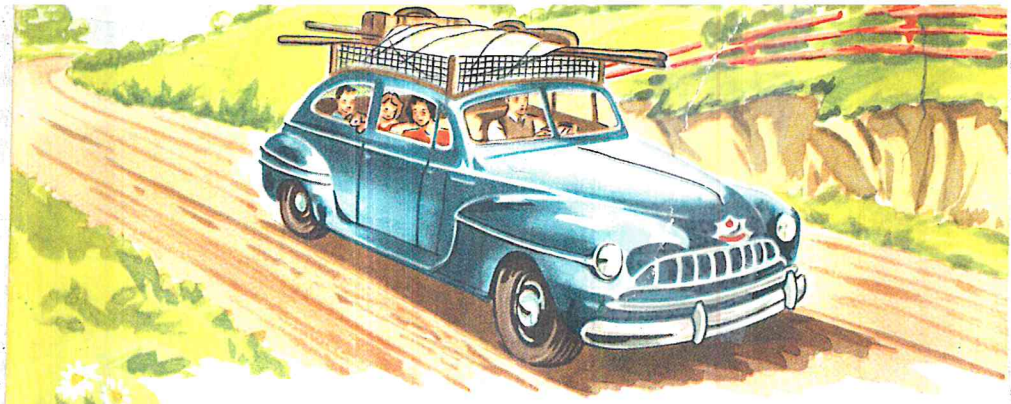
1.	452	338	610	523	164
	221	114	176	243	233
	165	245	123	161	430
2.	463	652	687	393	388
	27	7	13	478	4
	321	15	3	71	7

3. Copy and add: 648, 92, 101.

Race 5. Write the remainders quickly.

1.	37	73	32	84	30
	18	38	16	57	14
2.	67	54	93	67	83
	39	36	57	28	45
3.	589	796	294	893	785
	57	5	52	861	781





Honk! Honk! We Are Off on a Trip!

1. The trip took three days. Mr. Brown drove 328 miles the first day, 314 miles the next day, and 247 miles the third day. How many miles was this?

2. It took the Browns four days to drive home by a different way. They drove 216 miles the first day, 209 miles the second day, 267 miles the third day, and 213 miles the fourth day. How many miles was this?

3. One day Mr. Brown spent $3.18 for gasoline and oil, $4.25 for food, and $1.30 to have a tire fixed. How much did he spend in all?

4. Another day Mr. Brown spent $2.25 for gasoline and oil, $5.10 for food, and $0.75 for rent of a place to camp. How much did he spend in all?

5. One summer the Browns had their vacation in the north woods. To get there, they drove 322 miles one day, 234 miles the next day, 308 miles the third day, and 68 miles the fourth day. How many miles was this?

Addition for Every Busy Beaver

Write the sums.

1.	36	57	48	29	126	277	359
	47	49	6	32	349	18	6
2.	67	48	39	58	365	313	380
	52	81	93	71	272	493	76
3.	54	63	72	81	542	306	48
	24	6	9	30	124	98	435
	32	35	8	9	227	138	7
4.	77	9	54	62	730	60	9
	8	63	7	54	3	819	547
	19	68	8	3	35	56	94
	4	7	36	9	100	20	37

Copy neatly and add.

5. 53, 46, 92.

6. 29, 43, 9, 81.

7. 41, 34, 6, 7.

8. 324, 16, 41, 314.

9. 61, 45, 645, 73.

10. 430, 219, 85, 172.

11. $4.78, $1.10, $2.50

12. $3.17, $0.60, $2.16

13. $6.00, $1.16, $0.85

14. $0.48, $4.50, $0.07

Subtraction for Every Busy Beaver

Write the remainders on folded paper.

1.	18	15	16	13	67	58	95	57
	9	7	9	4	42	34	61	36
2.	25	38	46	53	39	64	51	60
	8	9	4	7	6	5	3	7
3.	43	57	39	73	84	91	50	71
	38	51	30	65	78	84	41	64

Copy and subtract.

4. 9 from 17

5. 25 from 48

6. 39 from 64

7. 8 from 45

8. 57 from 72

9. 216 from 549

10. \$2.15 from \$6.75

11. 33 from 564

12. \$0.21 from \$4.89

13. \$5.35 from \$7.95

Write the remainders on folded paper.

14.	283	489	382	475	273	756	334
	142	253	140	232	72	45	21
15.	594	938	245	381	490	383	927
	540	838	202	370	290	353	725

More Work for Every Busy Beaver

1. Draw a pie. Cut it into two equal parts. Tell what each part is called. Color $\frac{1}{2}$ of the pie red.

2. Draw a pan of fudge. Cut it into four equal parts. What is each part called? Color $\frac{1}{4}$ of the fudge brown.

3. Copy these numbers:

4 10 7 12 2

Draw a ring around the number that tells how many days in a week.

Make a box around the number that tells how many eggs in a dozen.

Make a cross above the number that tells how many quarters in a dollar.

Draw a line under the number that tells how many nickels make a dime.

Draw two lines under the number that tells how many dimes make a dollar.

4. Write these numbers in figures:

two hundred eighty-five — nine hundred sixty-three
three hundred four — six hundred seventy
five dollars and seventy-five cents — six cents
nine dollars and seventeen cents — ninety cents

Swimming Around the Pond

1. Oscar can sell 156 boxes of berries. He has picked 124 boxes. How many more does he need?

2. One day he sold 18 bunches of radishes, 8 bunches of new onions, and 6 bunches of carrots. How many bunches in all did he sell?

3. Last year he raised 82 summer squash and sold 63 of them. How many did he not sell?

4. Oscar sold 9 pounds of string beans one day, 7 pounds the next day, 5 pounds the next day, and 8 pounds the fourth day. How many pounds was this?

5. He sold 68 cents' worth of vegetables to Mrs. Baker, and she gave him a dollar. What change would he give Mrs. Baker? Tell how you would count the change.

6. Oscar sold $18.75 worth of vegetables. The seeds and plants cost $2.65. How much money did he make for the work he did?

7. He worked 23 hours in April, 33 hours in May, 20 hours in June, and 31 hours in July. How many hours did he work in these four months?